ISSN 1992-4526

Statistics of Communicable Diseases and Surveillance Report

2013

Annual
December 2014

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

Statistics of Communicable Diseases and Surveillance Report Republic of China 2013

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

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

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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 “Case report of of notifiable communicable disease/emerging infectious disease, including suspected cases”** by post/fax to the local health authority that then completed the case reporting process online.
   (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 implemented from 2007 through 2011. It was also decided in 2010 that the SMYF program be combined into an "Acute Communicable Disease Risk Assessment and Intervention Project" for implementation from 2011 through 2015. The goals of the project are to eradicate measles by 2011 and maintain the achievements in poliomyelitis eradication, neonatal tetanus elimination and effective control of German measles and congenital rubella syndrome (CRS).
   (5) Unspecified hepatitis: Cases that are non-A / non-B hepatitis and that can neither be classified as hepatitis C, D or E.
3. 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 "2013 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 2013 was based on the data before 2014/5/1.

(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.

(18) Anthrax has been changed category from the list of Category I Notifiable Communicable Diseases to the list of Category II Notifiable Communicable Diseases since January 24, 2013.

(19) "Severe Acute Respiratory Infections associated with Novel Coronavirus" has been changed name to "Novel Coronavirus Infections" since March 14, 2013.

(20) "H7N9 Influenza" has been included in the list of Category V Notifiable Communicable Diseases since April 3, 2013.

(21) "Novel Coronavirus Infection" has been changed name to "Middle East Respiratory Syndrome Coronavirus Infections". "Cat-Scratch Disease" and "NDM-1 Enterobacteriaceae" have been removed from the list of Category IV since June 7, 2013.

5. Symbols: "-" for no reported cases; "…" for not under surveillance.
6. Figures may not sum up to the total due to rounding.

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* 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".

PART 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, 2013

Unit: Person

Area / Locality	Midyear population	Category I					Category II	
		Smallpox	Plague	SARS	Rabies[1]	H5N1 Influenza	Diphtheria	Typhoid[1] Fever
Total	23,344,670	-	-	-	1	-	-	19
Taipei Area								
Taipei City	2,679,871	-	-	-	-	-	-	3
New Taipei City	3,947,117	-	-	-	-	-	-	8
Keelung City	376,033	-	-	-	-	-	-	-
Yilan County	458,525	-	-	-	-	-	-	-
Kinmen County	116,912	-	-	-	-	-	-	-
Lienchiang County	11,738	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	2,037,092	-	-	-	-	-	-	1
Hsinchu City	426,777	-	-	-	-	-	-	-
Hsinchu County	527,240	-	-	-	-	-	-	-
Miaoli County	564,765	-	-	-	-	-	-	-
Central Area								
Taichung City	2,693,277	-	-	-	-	-	-	1
Changhua County	1,297,940	-	-	-	-	-	-	-
Nantou County	518,709	-	-	-	-	-	-	1
Southern Area								
Yunlin County	709,392	-	-	-	-	-	-	-
Chiayi City	271,046	-	-	-	-	-	-	1
Chiayi County	531,476	-	-	-	-	-	-	-
Tainan City	1,882,427	-	-	-	-	-	-	-
Kao-Ping Area								
Kaohsiung City	2,779,268	-	-	-	-	-	-	4
Pingtung County	855,364	-	-	-	1	-	-	-
Penghu County	99,622	-	-	-	-	-	-	-
Eastern Area								
Hualien County	334,543	-	-	-	-	-	-	-
Taitung County	225,536	-	-	-	-	-	-	-
Others		-	-	-	-	-	-	-

Note:[1]The case amount in 2013 contained imported cases, including one rabies and 13 typhoid fever.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Category II							
	Dengue[1] Fever	Dengue[1] Hemorrhagic Fever/ Dengue Shock Syndrome	Meningococcal Meningitis	Paratyphoid[1] Fever	Poliomyelitis	Acute [1,2] Flaccid Paralysis	Shigellosis[1]	Amoebiasis[1]
Total	860	16	6	9	-	25	155	270
Taipei Area								
Taipei City	63	-	-	1	-	5	30	43
New Taipei City	36	-	-	4	-	4	54	43
Keelung City	2	-	-	-	-	-	8	2
Yilan County	2	-	1	1	-	-	5	6
Kinmen County	-	-	-	-	-	-	1	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	46	-	1	-	-	3	19	19
Hsinchu City	4	-	-	-	-	-	3	3
Hsinchu County	15	-	-	-	-	-	3	4
Miaoli County	8	-	-	-	-	-	2	5
Central Area								
Taichung City	22	-	1	-	-	5	6	25
Changhua County	9	-	-	2	-	1	2	10
Nantou County	7	-	-	-	-	-	1	4
Southern Area								
Yunlin County	5	-	-	-	-	-	3	5
Chiayi City	-	-	-	1	-	-	-	2
Chiayi County	3	-	-	-	-	-	2	8
Tainan City	51	3	1	-	-	-	2	29
Kao-Ping Area								
Kaohsiung City	102	5	-	-	-	6	3	27
Pingtung County	480	8	-	-	-	1	2	7
Penghu County	2	-	-	-	-	-	1	6
Eastern Area								
Hualien County	3	-	1	-	-	-	8	15
Taitung County	-	-	1	-	-	-	-	7
Others	-	-	-	-	-	-	-	-

Note: [1]The case amount in 2013 contained imported cases, including 264 dengue fever, two dengue hemorrhagic fever /dengue shock syndrome, two paratyphoid fever, two acute flaccid paralysis, 131 shigellosis and 182 amoebiasis.

[2]No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Midyear population	Category II						
		Malaria[1]		Measles[1]	Acute [1] Hepatitis A	Enterohaemorrhagic *E. coli* Infection	Hantavirus Syndrome	
		Indigenous	Imported				Hemorrhagic Fever with Renal Syndrome	Hantavirus Pulmonary Syndrome
Total	23,344,670	-	13	8	139	-	-	-
Taipei Area								
Taipei City	2,679,871	-	2	2	18	-	-	-
New Taipei City	3,947,117	-	4	2	28	-	-	-
Keelung City	376,033	-	1	-	5	-	-	-
Yilan County	458,525	-	-	-	3	-	-	-
Kinmen County	116,912	-	-	-	1	-	-	-
Lienchiang County	11,738	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	2,037,092	-	-	1	16	-	-	-
Hsinchu City	426,777	-	-	-	1	-	-	-
Hsinchu County	527,240	-	-	-	8	-	-	-
Miaoli County	564,765	-	-	-	5	-	-	-
Central Area								
Taichung City	2,693,277	-	1	1	14	-	-	-
Changhua County	1,297,940	-	-	-	4	-	-	-
Nantou County	518,709	-	-	-	4	-	-	-
Southern Area								
Yunlin County	709,392	-	-	-	7	-	-	-
Chiayi City	271,046	-	1	-	-	-	-	-
Chiayi County	531,476	-	-	-	2	-	-	-
Tainan City	1,882,427	-	-	-	7	-	-	-
Kao-Ping Area								
Kaohsiung City	2,779,268	-	3	2	15	-	-	-
Pingtung County	855,364	-	1	-	1	-	-	-
Penghu County	99,622	-	-	-	-	-	-	-
Eastern Area								
Hualien County	334,543	-	-	-	-	-	-	-
Taitung County	225,536	-	-	-	-	-	-	-
Others		-	-	-	-	-	-	-

Note: [1] The case amount in 2013 contained imported cases, including 13 malaria, six measles, and 40 acute hepatitis A.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Category II						
	Cholera	Rubella[1]	MDR-TB[3]	Chikungunya[1] Fever	West Nile Fever	Epidemic Typhus Fever	Anthrax
Total	7	7	129	29	-	-	-
Taipei Area							
Taipei City	1	1	12	6	-	-	-
New Taipei City	-	2	20	4	-	-	-
Keelung City	-	-	3	-	-	-	-
Yilan County	-	1	4	1	-	-	-
Kinmen County	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-
Northern Area							
Taoyuan County	-	2	12	8	-	-	-
Hsinchu City	-	-	-	-	-	-	-
Hsinchu County	-	-	1	4	-	-	-
Miaoli County	-	-	2	1	-	-	-
Central Area							
Taichung City	2	1	8	-	-	-	-
Changhua County	2	-	3	-	-	-	-
Nantou County	-	-	5	1	-	-	-
Southern Area							
Yunlin County	-	-	3	-	-	-	-
Chiayi City	1	-	5	-	-	-	-
Chiayi County	-	-	1	-	-	-	-
Tainan City	-	-	12	-	-	-	-
Kao-Ping Area							
Kaohsiung City	1	-	19	2	-	-	-
Pingtung County	-	-	4	2	-	-	-
Penghu County	-	-	1	-	-	-	-
Eastern Area							
Hualien County	-	-	7	-	-	-	-
Taitung County	-	-	7	-	-	-	-
Others	-	-	-	-	-	-	-

Note:[1]The case amount in 2013 contained imported cases, including six rubella and 29 chikungunya fever.

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

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Midyear population	Category III					
		Pertussis	Tetanus[4]	Japanese Encephalitis	Tuberculosis[3]		Congenital Rubella Syndrome
					Smear-positive	Others	
Total	23,344,670	51	24	16	4,592	6,936	-
Taipei Area							
Taipei City	2,679,871	8	2	1	348	547	-
New Taipei City	3,947,117	11	1	1	800	1,087	-
Keelung City	376,033	1	-	-	89	134	-
Yilan County	458,525	1	2	-	104	151	-
Kinmen County	116,912	-	-	-	8	8	-
Lienchiang County	11,738	-	-	-	-	3	-
Northern Area							
Taoyuan County	2,037,092	15	5	2	288	531	-
Hsinchu City	426,777	1	-	-	49	99	-
Hsinchu County	527,240	-	-	1	76	107	-
Miaoli County	564,765	1	-	-	75	103	-
Central Area							
Taichung City	2,693,277	6	-	2	387	710	-
Changhua County	1,297,940	-	2	1	287	417	-
Nantou County	518,709	-	-	-	138	194	-
Southern Area							
Yunlin County	709,392	1	2	1	197	272	-
Chiayi City	271,046	-	-	-	63	71	-
Chiayi County	531,476	-	2	-	128	169	-
Tainan City	1,882,427	-	4	3	341	559	-
Kao-Ping Area							
Kaohsiung City	2,779,268	3	1	3	717	1,056	-
Pingtung County	855,364	-	1	1	297	439	-
Penghu County	99,622	-	2	-	10	17	-
Eastern Area							
Hualien County	334,543	2	-	-	109	170	-
Taitung County	225,536	1	-	-	81	92	-
Others		-	-	-	-	-	-

Note: [3]The caseload of tuberculosis was estimated based on notification date.

[4]Calculation for tetanus was based on reported cases only.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Category III							
	Acute Hepatitis					Mumps[4]	Legionnaires'[1] Disease	Invasive Haemophilus Influenzae Type b Infection
	B[1]	C	D	E[1]	Un-specified			
Total	97	10	-	9	5	1,170	115	10
Taipei Area								
Taipei City	13	1	-	3	1	178	19	-
New Taipei City	21	-	-	2	-	253	15	2
Keelung City	1	-	-	-	-	32	1	-
Yilan County	1	1	-	-	-	25	3	-
Kinmen County	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	16	2	-	-	-	109	6	1
Hsinchu City	-	-	-	-	-	23	-	-
Hsinchu County	2	-	-	-	-	40	-	-
Miaoli County	2	1	-	-	-	30	4	-
Central Area								
Taichung City	13	-	-	2	-	88	13	2
Changhua County	1	-	-	-	-	46	10	1
Nantou County	3	-	-	-	-	26	2	-
Southern Area								
Yunlin County	1	2	-	1	1	28	4	-
Chiayi City	-	1	-	-	-	12	-	-
Chiayi County	3	-	-	-	-	9	1	1
Tainan City	8	-	-	-	2	48	9	1
Kao-Ping Area								
Kaohsiung City	7	1	-	-	1	137	22	1
Pingtung County	4	-	-	1	-	20	5	-
Penghu County	-	-	-	-	-	30	-	-
Eastern Area								
Hualien County	1	-	-	-	-	17	1	1
Taitung County	-	1	-	-	-	19	-	-
Others	-	-	-	-	-	-	-	-

Note:[1]The case amount in 2013 contained imported cases, including nine acute hepatitis B, five acute hepatitis E, and four legionnaires' disease.

[4]Calculation for mumps was based on reported cases only.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Midyear population	Category III						
		Syphilis[5]	Gonorrhea[5]	Neonatal Tetanus	Enteroviruses[1] Infection with Severe Complications	HIV [6] Infection	AIDS[6]	Hansen's[5] Disease
Total	23,344,670	6,346	2,155	-	12	2,244	1,430	7
Taipei Area								
Taipei City	2,679,871	930	499	-	1	401	199	-
New Taipei City	3,947,117	1,309	620	-	2	527	302	1
Keelung City	376,033	108	42	-	-	25	26	-
Yilan County	458,525	170	18	-	-	24	16	-
Kinmen County	116,912	3	-	-	-	-	1	-
Lienchiang County	11,738	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	2,037,092	822	230	-	1	186	131	-
Hsinchu City	426,777	98	34	-	-	52	31	-
Hsinchu County	527,240	95	45	-	2	31	23	-
Miaoli County	564,765	93	42	-	-	17	14	2
Central Area								
Taichung City	2,693,277	692	131	-	4	280	143	-
Changhua County	1,297,940	187	42	-	-	57	69	-
Nantou County	518,709	73	24	-	-	34	28	-
Southern Area								
Yunlin County	709,392	143	27	-	-	27	39	-
Chiayi City	271,046	46	22	-	-	11	3	-
Chiayi County	531,476	86	30	-	-	15	15	-
Tainan City	1,882,427	312	105	-	1	139	94	3
Kao-Ping Area								
Kaohsiung City	2,779,268	753	145	-	-	308	224	-
Pingtung County	855,364	231	34	-	-	67	43	-
Penghu County	99,622	22	1	-	-	1	1	1
Eastern Area								
Hualien County	334,543	120	46	-	1	31	21	-
Taitung County	225,536	53	18	-	-	11	7	-
Others		-	-	-	-	-	-	-

Note:[1]One case of enteroviruses infection with severe complications was imported in 2013.

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

[6]The 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, 2013

Unit: Person

Area / Locality	Category IV								
	Herpesvirus B Infection	Leptospirosis[1]	Melioidosis	Botulism	Invasive[1] Pneumococcal Disease	Q Fever[1]	Endemic[1] Typhus Fever	Lyme Disease	Tularemia
Total	-	82	19	1	625	48	27	-	-
Taipei Area									
Taipei City	-	5	-	-	66	-	-	-	-
New Taipei City	-	23	-	-	101	1	1	-	-
Keelung City	-	1	-	-	10	-	-	-	-
Yilan County	-	2	-	-	16	-	-	-	-
Kinmen County	-	-	-	-	-	2	-	-	-
Lienchiang County	-	-	-	-	1	-	-	-	-
Northern Area									
Taoyuan County	-	9	-	-	55	2	-	-	-
Hsinchu City	-	3	-	1	11	-	-	-	-
Hsinchu County	-	1	-	-	18	-	-	-	-
Miaoli County	-	2	-	-	9	1	-	-	-
Central Area									
Taichung City	-	4	1	-	54	6	2	-	-
Changhua County	-	7	1	-	38	4	1	-	-
Nantou County	-	1	1	-	16	1	-	-	-
Southern Area									
Yunlin County	-	-	-	-	22	4	1	-	-
Chiayi City	-	-	-	-	11	-	-	-	-
Chiayi County	-	-	-	-	19	-	-	-	-
Tainan City	-	4	1	-	53	8	5	-	-
Kao-Ping Area									
Kaohsiung City	-	7	15	-	60	15	14	-	-
Pingtung County	-	11	-	-	32	4	3	-	-
Penghu County	-	-	-	-	2	-	-	-	-
Eastern Area									
Hualien County	-	2	-	-	15	-	-	-	-
Taitung County	-	-	-	-	16	-	-	-	-
Others	-	-	-	-	-	-	-	-	-

Note:[1]The case amount in 2013 contained imported cases, including three leptospirosis, one invasive pneumococcal disease, five Q fever, and one endemic typhus fever.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases —by locality, 2013

Unit: Person

Area / Locality	Midyear population	Category IV					
		Scrub[1] Typhus	Varicella[4]	Cat-Scratch[1,12] Disease	Toxoplasmosis[1]	Complicated [1] Influenza	Creutzfeldt-[5] Jakob Disease
Total	23,344,670	538	10,276	23	15	965	-
Taipei Area							
Taipei City	2,679,871	15	1,837	3	1	159	-
New Taipei City	3,947,117	21	2,778	6	2	287	-
Keelung City	376,033	-	159	-	-	2	-
Yilan County	458,525	10	172	1	-	14	-
Kinmen County	116,912	77	12	-	-	-	-
Lienchiang County	11,738	17	1	-	-	-	-
Northern Area							
Taoyuan County	2,037,092	16	751	2	1	52	-
Hsinchu City	426,777	3	346	1	1	3	-
Hsinchu County	527,240	11	432	-	-	17	-
Miaoli County	564,765	10	218	1	-	15	-
Central Area							
Taichung City	2,693,277	12	943	1	3	30	-
Changhua County	1,297,940	5	428	-	1	62	-
Nantou County	518,709	29	110	1	1	38	-
Southern Area							
Yunlin County	709,392	2	285	1	-	27	-
Chiayi City	271,046	3	74	-	-	4	-
Chiayi County	531,476	3	208	1	-	17	-
Tainan City	1,882,427	5	426	-	4	75	-
Kao-Ping Area							
Kaohsiung City	2,779,268	43	751	3	-	99	-
Pingtung County	855,364	17	124	1	-	21	-
Penghu County	99,622	122	22	-	-	1	-
Eastern Area							
Hualien County	334,543	43	148	1	1	15	-
Taitung County	225,536	74	51	-	-	27	-
Others		-	-	-	-	-	-

Note:[1]The case amount in 2013 contained imported cases, including one scrub typhus, one cat-scratch disease, one toxoplasmosis, and six complicated influenza.

[4]Calculation for varicella was based on reported cases only.

[5]The caseload of Creutzfeldt-Jakob disease was estimated based on diagnosis date.

[12]Cat-scratch disease has been removed from Category IV Notifiable Disease since June 7, 2013.

Table 1 *(Continued)* Number of confirmed cases of notifiable diseases — by locality, 2013

Unit: Person

Area / Locality	Category IV		Category V						
	NDM-1[12] Enterobacteriaceae	Brucellosis	Rift Valley Fever	Marburg Haemorrhagic Fever	Yellow Fever	Ebola Haemorrhagic Fever	Lassa Fever	Middle[11] East Respiratory Syndrome Coronavirus Infections	H7N9[1,13] Influenza
Total	-	-	-	-	-	-	-	-	2
Taipei Area									
Taipei City	-	-	-	-	-	-	-	-	1
New Taipei City	-	-	-	-	-	-	-	-	-
Keelung City	-	-	-	-	-	-	-	-	-
Yilan County	-	-	-	-	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-	-
Northern Area									
Taoyuan County	-	-	-	-	-	-	-	-	1
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: [1]Two cases of H7N9 influenza were imported in 2013.

[11]"Severe acute respiratory infections associated with novel coronavirus" has been renamed as "Middle east respiratory syndrome coronavirus infections" since June 7, 2013.

[12]NDM-1 enterobacteriaceae has been removed from Category IV Notifiable Disease since June 7, 2013.

[13]The statistics of H7N9 influenza data has been generated since the proclamation validated on April 3, 2013.

Table 2 Number of confirmed cases and incidence[7] rate of notifiable diseases — by age group, 2013

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
H5N1 Influenza	-	-	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever[1]	-	-	1	0.13	4	0.17	3	0.09	9	0.16
Dengue Fever[1]	-	-	4	0.51	55	2.30	106	3.32	241	4.31
Dengue Hemorrhagic Fever /[1] Dengue Shock Syndrome	-	-	-	-	2	0.08	-	-	1	0.02
Meningococcal Meningitis	2	0.99	2	0.26	-	-	1	0.03	-	-
Paratyphoid Fever[1]	-	-	-	-	-	-	-	-	4	0.07
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[1,2]	-	-	9	1.15	16	0.67	-	-	-	-
Shigellosis[1]	1	0.50	1	0.13	7	0.29	50	1.57	83	1.48
Amoebiasis[1]	-	-	-	-	1	0.04	48	1.50	162	2.90
Malaria[1]										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	-	-	-	-	-	-	-	-	3	0.05
Measles[1]	3	1.49	-	-	-	-	-	-	4	0.07
Acute Hepatitis A[1]	-	-	-	-	5	0.21	24	0.75	66	1.18
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	1	0.03	3	0.05

Note:[1]The case amount in 2013 contained imported cases, including one rabies, 13 typhoid fever, 264 dengue fever, two hemorrhagic fever /dengue shock syndrome, two paratyphoid fever, two acute flaccid paralysis, 131 shigellosis, 182 amoebiasis, 13 malaria, six measles, and 40 acute hepatitis A.

[2]No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992.

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by age group, 2013

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
H5N1 Influenza	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever[1]	1	0.01	1	0.04	-	-	19	0.08
Dengue Fever[1]	332	3.89	122	4.61	-	-	860	3.68
Dengue Hemorrhagic Fever /[1] Dengue Shock Syndrome	7	0.08	6	0.23	-	-	16	0.07
Meningococcal Meningitis	1	0.01	-	-	-	-	6	0.03
Paratyphoid Fever[1]	4	0.05	1	0.04	-	-	9	0.04
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[1,2]	-	-	-	-	-	-	25	0.11
Shigellosis[1]	11	0.13	2	0.08	-	-	155	0.66
Amoebiasis[1]	54	0.63	5	0.19	-	-	270	1.16
Malaria[1]								
Indigenous	-	-	-	-	-	-	-	-
Imported	8	0.09	2	0.08	-	-	13	0.06
Measles[1]	1	0.01	-	-	-	-	8	0.03
Acute Hepatitis A[1]	36	0.42	8	0.30	-	-	139	0.60
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome								
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	3	0.04	-	-	-	-	7	0.03

Note:[1]The case amount in 2013 contained imported cases, including one rabies, 13 typhoid fever, 264 dengue fever, two hemorrhagic fever /dengue shock syndrome, two paratyphoid fever, two acute flaccid paralysis, 131 shigellosis, 182 amoebiasis, 13 malaria, six measles, and 40 acute hepatitis A.

[2]No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992.

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by age group, 2013

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	0.06	3	0.05
MDR-TB[3]	-	-	-	-	-	-	5	0.16	16	0.29
Chikungunya Fever[1]	-	-	1	0.13	1	0.04	3	0.09	15	0.27
West Nile Fever	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis	30	14.90	2	0.26	12	0.50	1	0.03	5	0.09
Tetanus[4]	-	-	-	-	-	-	1	0.03	2	0.04
Japanese Encephalitis	-	-	-	-	-	-	1	0.03	5	0.09
Tuberculosis[3]										
Smear-positive	-	-	-	-	9	0.38	174	5.45	389	6.95
Others	6	2.98	7	0.89	45	1.88	371	11.61	723	12.92
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis										
B[1]	1	0.50	-	-	-	-	17	0.53	39	0.70
C	-	-	-	-	-	-	-	-	1	0.02
D	-	-	-	-	-	-	-	-	-	-
E[1]	-	-	-	-	-	-	-	-	2	0.04
Unspecified	-	-	-	-	-	-	-	-	-	-
Mumps[4]	8	3.97	216	27.55	551	23.02	85	2.66	130	2.32
Legionnaires' Disease[1]	2	0.99	-	-	-	-	-	-	7	0.13
Invasive Haemophilus Influenzae Type b Infection	-	-	-	-	1	0.04	-	-	-	-
Syphilis[5]	23	11.42	-	-	2	0.08	863	27.01	2,260	40.39
Gonorrhea[5]	-	-	-	-	6	0.25	757	23.69	1,094	19.55
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications[1]	2	0.99	8	1.02	1	0.04	-	-	1	0.02
HIV Infection[6]	-	-	-	-	-	-	588	18.40	1,282	22.91
AIDS[6]	-	-	-	-	-	-	172	5.38	834	14.91

Note:[1]The case amount in 2013 contained imported cases, including six rubella, 29 chikungunya fever, nine acute hepatitis B, five acute hepatitis E, four legionnaires' disease, and one enteroviruses infection with severe complications.

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

[4]Calculation for tetanus and mumps were based on reported cases only.

[5]The caseload of syphilis and gonorrhea were estimated by the date of diagnosis.

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

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by age group, 2013

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	-	-	-	-	7	0.03
MDR-TB[3]	73	0.86	35	1.32	-	-	129	0.55
Chikungunya Fever[1]	5	0.06	4	0.15	-	-	29	0.12
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-
Category III								
Pertussis	1	0.01	-	-	-	-	51	0.22
Tetanus[4]	5	0.06	16	0.60	-	-	24	0.10
Japanese Encephalitis	9	0.11	1	0.04	-	-	16	0.07
Tuberculosis[3]								
Smear-positive	1,641	19.24	2,379	89.87	-	-	4,592	19.67
Others	2,051	24.05	3,733	141.01	-	-	6,936	29.71
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B[1]	38	0.45	2	0.08	-	-	97	0.42
C	4	0.05	5	0.19	-	-	10	0.04
D	-	-	-	-	-	-	-	-
E[1]	6	0.07	1	0.04	-	-	9	0.04
Unspecified	2	0.02	3	0.11	-	-	5	0.02
Mumps[4]	144	1.69	36	1.36	-	-	1,170	5.01
Legionnaires' Disease[1]	56	0.66	50	1.89	-	-	115	0.49
Invasive Haemophilus Influenzae Type b Infection	4	0.05	5	0.19	-	-	10	0.04
Syphilis[5]	1,802	21.13	1,396	52.73	-	-	6,346	27.18
Gonorrhea[5]	279	3.27	19	0.72	-	-	2,155	9.23
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications[1]	-	-	-	-	-	-	12	0.05
HIV Infection[6]	353	4.14	21	0.79	-	-	2,244	9.61
AIDS[6]	402	4.71	22	0.83	-	-	1,430	6.13

Note:[1]The case amount in 2013 contained imported cases, including six rubella, 29 chikungunya fever, nine acute hepatitis B, five acute hepatitis E, four legionnaires' disease, and one enteroviruses infection with severe complications.

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

[4]Calculation for tetanus and mumps were based on reported cases only.

[5]The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 2 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by age group, 2013

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[5]	-	-	-	-	-	-	1	0.03	3	0.05
Category IV										
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-
Leptospirosis[1]	-	-	-	-	-	-	5	0.16	17	0.30
Melioidosis	-	-	-	-	-	-	2	0.06	2	0.04
Botulism	-	-	-	-	1	0.04	-	-	-	-
Invasive Pneumococcal Disease[1]	16	7.95	107	13.65	38	1.59	12	0.38	47	0.84
Q Fever[1]	-	-	-	-	-	-	-	-	12	0.21
Endemic Typhus Fever[1]	-	-	-	-	-	-	2	0.06	8	0.14
Lyme Disease	-	-	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-	-	-
Scrub Typhus[1]	-	-	7	0.89	27	1.13	70	2.19	106	1.89
Varicella[4]	443	220.02	948	120.92	4,534	189.40	1,880	58.85	1,850	33.06
Cat-Scratch Disease[1,12]	-	-	-	-	1	0.04	7	0.22	8	0.14
Toxoplasmosis[1]	-	-	-	-	-	-	2	0.06	5	0.09
Complicated Influenza[1]	9	4.47	27	3.44	44	1.84	42	1.31	131	2.34
Creutzfeldt-Jakob Disease[5]	-	-	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae[12]	-	-	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-	-	-
Category V										
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome[11] Coronavirus Infections	-	-	-	-	-	-	-	-	-	-
H7N9 Influenza[1,13]	-	-	-	-	-	-	-	-	-	-

Note:[1]The case amount in 2013 contained imported cases, including three leptospirosis, one invasive pneumococcal disease, five Q fever, one endemic typhus fever, one scrub typhus, one cat-scratch disease, one toxoplasmosis, six complicated influenza, and two H7N9 influenza.

[4]Calculation for varicella was based on reported cases only.

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

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

[11]"Severe acute respiratory infections associated with novel coronavirus" has been renamed as "Middle east respiratory syndrome coronavirus infections" since June 7, 2013.

[12]Cat-scratch disease and NDM-1 enterobacteriaceae have been removed from Category IV Notifiable Disease since June 7, 2013.

[13]The statistics of H7N9 influenza data has been generated since the proclamation validated on April 3, 2013.

Table 2 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by age group, 2013

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[5]	2	0.02	1	0.04	-	-	7	0.03
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis[1]	50	0.59	10	0.38	-	-	82	0.35
Melioidosis	9	0.11	6	0.23	-	-	19	0.08
Botulism	-	-	-	-	-	-	1	<0.01
Invasive Pneumococcal Disease[1]	192	2.25	213	8.05	-	-	625	2.68
Q Fever[1]	30	0.35	6	0.23	-	-	48	0.21
Endemic Typhus Fever[1]	15	0.18	2	0.08	-	-	27	0.12
Lyme Disease	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus[1]	238	2.79	90	3.40	-	-	538	2.30
Varicella[4]	577	6.77	44	1.66	-	-	10,276	44.02
Cat-Scratch Disease[1,12]	6	0.07	1	0.04	-	-	23	0.10
Toxoplasmosis[1]	8	0.09	-	-	-	-	15	0.06
Complicated Influenza[1]	346	4.06	366	13.83	-	-	965	4.13
Creutzfeldt-Jakob Disease[5]	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae[12]	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome Coronavirus Infections[11]	-	-	-	-	-	-	-	-
H7N9 Influenza[1,13]	1	0.01	1	0.04	-	-	2	0.01

Note:[1] The case amount in 2013 contained imported cases, including three leptospirosis, one invasive pneumococcal disease, five Q fever, one endemic typhus fever, one scrub typhus, one cat-scratch disease, one toxoplasmosis, six complicated influenza and two H7N9 influenza.

[4]Calculation for varicella was based on reported cases only.

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

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

[11]"Severe acute respiratory infections associated with novel coronavirus" has been renamed as "Middle east respiratory syndrome coronavirus infections" since June 7, 2013.

[12] Cat-scratch disease and NDM-1 enterobacteriaceae have been removed from Category IV Notifiable Disease since June 7, 2013.

[13] The statistics of H7N9 influenza data has been generated since the proclamation validated on April 3, 2013.

Table 3 Number of confirmed cases of notifiable diseases — by month, 2013

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
H5N1 Influenza	-	-	-	-	-	-	-	-	-	-	-	-	-
Category II													
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid Fever[1]	-	6	1	4	-	-	2	3	3	-	-	-	19
Dengue Fever[1]	29	19	22	15	26	55	54	66	94	99	205	176	860
Dengue Hemorrhagic Fever /[1] Dengue Shock Syndrome	2	-	-	-	-	-	-	-	-	3	7	4	16
Meningococcal Meningitis	-	2	-	-	-	-	-	-	-	-	3	1	6
Paratyphoid Fever[1]	-	1	3	1	1	-	-	2	-	-	-	1	9
Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[1,2]	3	2	3	3	2	3	-	1	1	-	4	3	25
Shigellosis[1]	19	11	12	10	16	7	23	16	11	7	11	12	155
Amoebiasis[1]	19	16	20	29	20	23	30	31	15	19	27	21	270
Malaria[1]													
Indigenous	-	-	-	-	-	-	-	-	-	-	-	-	-
Imported	1	4	-	1	1	-	2	1	-	-	2	1	13
Measles[1]	2	-	-	2	-	-	2	2	-	-	-	-	8
Acute Hepatitis A[1]	10	7	18	16	24	10	6	20	6	5	4	13	139
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome													
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera	2	-	-	-	-	-	1	1	1	2	-	-	7

Note:[1]The case amount in 2013 contained imported cases, including one rabies, 13 typhoid fever, 264 dengue fever, two dengue hemorrhagic fever /dengue shock syndrome, two paratyphoid fever, two acute flaccid paralysis,131 shigellosis, 182 amoebiasis, 13 malaria, six measles, and 40 acute hepatitis A.

[2]No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992.

Table 3 *(Continued)* Number of confirmed cases of notifiable diseases — by month, 2013

Unit: Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category II													
Rubella[1]	-	-	2	-	1	-	1	-	1	2	-	-	7
MDR-TB[3]	13	10	21	9	15	14	12	5	5	13	7	5	129
Chikungunya Fever[1]	1	1	3	2	-	2	3	9	3	1	-	4	29
West Nile Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-	-	-	-
Category III													
Pertussis	9	7	6	4	1	10	2	1	-	-	4	7	51
Tetanus[4]	2	2	2	2	4	3	3	2	1	1	-	2	24
Japanese Encephalitis	-	-	-	-	2	11	3	-	-	-	-	-	16
Tuberculosis[3]													
Smear-positive	348	295	392	424	409	387	437	419	371	395	361	354	4,592
Others	611	448	609	616	612	541	672	586	529	610	583	519	6,936
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis													
B[1]	10	12	5	3	8	4	7	13	12	5	10	8	97
C	-	-	3	1	-	2	1	1	-	1	1	-	10
D	-	-	-	-	-	-	-	-	-	-	-	-	-
E[1]	1	-	1	-	1	-	1	-	1	1	-	3	9
Unspecified	-	-	-	1	-	1	-	-	1	1	1	-	5
Mumps[4]	77	59	77	105	149	91	97	116	112	95	102	90	1,170
Legionnaires' Disease[1]	6	4	4	15	15	11	9	9	12	16	4	10	115
Invasive Haemophilus Influenzae Type b Infection	1	-	1	-	2	1	2	1	-	2	-	-	10
Syphilis[5]	498	370	588	496	629	563	593	543	516	613	486	451	6,346
Gonorrhea[5]	161	135	166	162	192	156	196	188	198	206	189	206	2,155
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications[1]	1	-	-	3	-	1	3	-	-	-	1	3	12
HIV Infection[6]	195	130	228	169	228	189	221	184	172	198	175	155	2,244
AIDS[6]	129	75	145	148	124	111	125	143	77	144	118	91	1,430

Note:[1]The case amount in 2013 contained imported cases, including six rubella, 29 chikungunya fever, nine acute hepatitis B, five acute hepatitis E, four legionnaires' disease, and one enteroviruses infection with severe complications.

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

[4]Calculation for tetanus and mumps were based on reported cases only.

[5]The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

[6]The 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, 2013

Unit: Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category III													
Hansen's Disease[5]	1	-	3	1	-	1	-	-	-	-	-	1	7
Category IV													
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis[1]	3	5	1	7	9	4	8	8	18	11	5	3	82
Melioidosis	1	2	-	2	1	-	-	2	8	2	-	1	19
Botulism	-	-	-	-	-	-	-	1	-	-	-	-	1
Invasive Pneumococcal Disease[1]	67	81	80	61	47	43	32	31	32	26	56	69	625
Q Fever[1]	3	2	8	5	3	6	3	5	4	3	1	5	48
Endemic Typhus Fever[1]	2	-	2	1	5	5	5	3	1	-	-	3	27
Lyme Disease	-	-	-	-	-	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-	-	-	-	-	-
Scrub Typhus[1]	36	9	7	19	35	82	92	65	58	79	28	28	538
Varicella[4]	1,044	850	819	954	943	665	729	746	850	830	856	990	10,276
Cat-Scratch Disease[1,12]	2	5	4	7	3	2	…	…	…	…	…	…	23
Toxoplasmosis[1]	1	2	2	-	2	2	1	1	1	1	-	2	15
Complicated Influenza[1]	39	74	128	173	157	124	54	41	33	25	31	86	965
Creutzfeldt-Jakob Disease[5]	-	-	-	-	-	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae[12]	-	-	-	-	-	-	…	…	…	…	…	…	-
Brucellosis	-	-	-	-	-	-	-	-	-	-	-	-	-
Category V													
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome Coronavirus Infections[11]	-	-	-	-	-	-	-	-	-	-	-	-	-
H7N9 Influenza[1,13]	…	…	…	1	-	-	-	-	-	-	-	1	2

Note:[1]The case amount in 2013 contained imported cases, including three leptospirosis, one invasive pneumococcal disease, five Q fever, one endemic typhus fever, one scrub typhus, one cat-scratch disease, one toxoplasmosis, six complicated influenza, and two H7N9 influenza.

[4]Calculation for varicella was based on reported cases only.

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

[11]"Severe acute respiratory infections associated with novel coronavirus" has been renamed as "Middle east respiratory syndrome coronavirus infections" since June 7, 2013.

[12] Cat-scratch disease and NDM-1 enterobacteriaceae have been removed from Category IV Notifiable Disease since June 7, 2013.

[13] The statistics of H7N9 influenza data has been generated since the proclamation validated on April 3, 2013.

Table 4 Number of confirmed cases and incidence[7] rate of notifiable diseases — by sex, 2013

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
H5N1 Influenza	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever[1]	8	0.07	11	0.09	-	-	19	0.08
Dengue Fever[1]	426	3.65	434	3.72	-	-	860	3.68
Dengue Hemorrhagic Fever/[1] Dengue Shock Syndrome	5	0.04	11	0.09	-	-	16	0.07
Meningococcal Meningitis	1	0.01	5	0.04	-	-	6	0.03
Paratyphoid Fever[1]	8	0.07	1	0.01	-	-	9	0.04
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[1,2]	10	0.09	15	0.13	-	-	25	0.11
Shigellosis[1]	104	0.89	51	0.44	-	-	155	0.66
Amoebiasis[1]	132	1.13	138	1.18	-	-	270	1.16
Malaria[1]								
Indigenous	-	-	-	-	-	-	-	-
Imported	5	0.04	8	0.07	-	-	13	0.06
Measles[1]	4	0.03	4	0.03	-	-	8	0.03
Acute Hepatitis A[1]	54	0.46	85	0.73	-	-	139	0.60
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome								
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	3	0.03	4	0.03	-	-	7	0.03

Note:[1] The case amount in 2013 contained imported cases, including one rabies, 13 typhoid fever, 264 dengue fever, two dengue hemorrhagic fever /dengue shock syndrome, two paratyphoid fever, two acute flaccid paralysis, 131 shigellosis, 182 amoebiasis, 13 malaria, six measles, and 40 acute hepatitis A.

[2]No wild poliovirus was detected since 1984. Nationwide surveillance of acute flaccid paralysis was used for detecting cases of poliomyelitis after implementing the “Eradication Program for Measles, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus” in 1992.

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 4 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by sex, 2013

Unit: Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category II								
Rubella[1]	3	0.03	4	0.03	-	-	7	0.03
MDR-TB[3]	32	0.27	97	0.83	-	-	129	0.55
Chikungunya Fever[1]	18	0.15	11	0.09	-	-	29	0.12
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-
Category III								
Pertussis	24	0.21	27	0.23	-	-	51	0.22
Tetanus[4]	12	0.10	12	0.10	-	-	24	0.10
Japanese Encephalitis	4	0.03	12	0.10	-	-	16	0.07
Tuberculosis[3]								
Smear-positive	1,264	10.84	3,328	28.50	-	-	4,592	19.67
Others	2,193	18.80	4,743	40.61	-	-	6,936	29.71
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B[1]	42	0.36	55	0.47	-	-	97	0.42
C	5	0.04	5	0.04	-	-	10	0.04
D	-	-	-	-	-	-	-	-
E[1]	4	0.03	5	0.04	-	-	9	0.04
Unspecified	3	0.03	2	0.02	-	-	5	0.02
Mumps[4]	472	4.05	698	5.98	-	-	1,170	5.01
Legionnaires' Disease[1]	26	0.22	89	0.76	-	-	115	0.49
Invasive Haemophilus Influenzae Type b Infection	3	0.03	7	0.06	-	-	10	0.04
Syphilis[5]	1,407	12.06	4,939	42.29	-	-	6,346	27.18
Gonorrhea[5]	152	1.30	2,003	17.15	-	-	2,155	9.23
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications[1]	3	0.03	9	0.08	-	-	12	0.05
HIV Infection[6]	52	0.45	2,192	18.77	-	-	2,244	9.61
AIDS[6]	75	0.64	1,355	11.60	-	-	1,430	6.13

Note:[1]The case amount in 2013 contained imported cases, including six rubella, 29 chikungunya fever, nine acute hepatitis B, five acute hepatitis E, four legionnaires' disease, and one enteroviruses infection with severe complications.

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

[4]Calculation for tetanus and mumps were based on reported cases only.

[5]The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

Table 4 *(Continued)* Number of confirmed cases and incidence[7] rate of notifiable diseases — by sex, 2013

Unit: Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category III								
Hansen's Disease[5]	3	0.03	4	0.03	-	-	7	0.03
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis[1]	12	0.10	70	0.60	-	-	82	0.35
Melioidosis	2	0.02	17	0.15	-	-	19	0.08
Botulism	1	0.01	-	-	-	-	1	<0.01
Invasive Pneumococcal Disease[1]	201	1.72	424	3.63	-	-	625	2.68
Q Fever[1]	4	0.03	44	0.38	-	-	48	0.21
Endemic Typhus Fever[1]	8	0.07	19	0.16	-	-	27	0.12
Lyme Disease	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus[1]	210	1.80	328	2.81	-	-	538	2.30
Varicella[4]	4,681	40.13	5,595	47.91	-	-	10,276	44.02
Cat-Scratch Disease[1,12]	11	0.09	12	0.10	-	-	23	0.10
Toxoplasmosis[1]	6	0.05	9	0.08	-	-	15	0.06
Complicated Influenza[1]	423	3.63	542	4.64	-	-	965	4.13
Creutzfeldt-Jakob Disease[5]	-	-	-	-	-	-	-	-
NDM-1 Enterobacteriaceae[12]	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome[11] Coronavirus Infections	-	-	-	-	-	-	-	-
H7N9 Influenza[1,13]	-	-	2	0.02	-	-	2	0.01

Note:[1]The case amount in 2013 contained imported cases, including three leptospirosis, one invasive pneumococcal disease, five Q fever, one endemic typhus fever, one scrub typhus, one cat-scratch disease, one toxoplasmosis, six complicated influenza, and two H7N9 influenza.

[4]Calculation for varicella was based on reported cases only.

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

[7]Incidence rate indicates the number of new confirmed cases per 100,000 population.

[11]"Severe acute respiratory infections associated with novel coronavirus" has been renamed as "Middle east respiratory syndrome coronavirus infections" since June 7, 2013.

[12]Cat-scratch disease and NDM-1 enterobacteriaceae have been removed from Category IV Notifiable Disease since June 7, 2013.

[13] The statistics of H7N9 influenza data has been generated since the proclamation validated on April 3, 2013.

Table 5 Number of confirmed cases of notifiable diseases — by year, 2004-2013

Unit: Person

Disease	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Category I										
Smallpox	…	…	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-
Rabies[1]	-	-	-	-	-	-	-	-	1	1
H5N1 Influenza	…	-	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever[1]	38	35	43	34	33	80	33	49	26	19
Dengue Fever[1]	427	306	1,074	2,179	714	1,052	1,896	1,702	1,478	860
Dengue Hemorrhagic Fever/[1] Dengue Shock Syndrome	7	5	19	12	5	11	21	22	36	16
Meningococcal Meningitis	24	20	13	20	19	2	7	5	6	6
Paratyphoid Fever[1]	19	13	10	6	11	6	12	6	8	9
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[1,2]	56	61	66	51	74	45	49	45	51	25
Shigellosis[1]	156	174	139	246	90	91	172	203	155	155
Amoebiasis[1]	96	120	125	145	227	190	262	256	258	270
Malaria[1]										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	18	26	26	13	18	11	21	17	12	13
Measles[1]	-	7	4	10	16	48	12	33	9	8
Acute Hepatitis A[1]	204	257	189	203	236	234	110	104	99	139
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	3	-	3	1	1	-	1	-	1	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	1	2	1	-	1	3	5	3	5	7

Note: [1]The case amount in 2013 contained imported cases, including one rabies, 13 typhoid fever, 264 dengue fever, two dengue hemorrhagic fever /dengue shock syndrome, two paratyphoid fever, two acute flaccid paralysis, 131 shigellosis, 182 amoebiasis, 13 malaria, six measles, and 40 acute hepatitis A.

[2]No 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, 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, 2004-2013

Unit: Person

Disease	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Category II										
Rubella[1]	4	7	6	54	33	23	21	60	12	7
MDR-TB[3,8]	…	…	…	19	159	176	156	154	140	129
Chikungunya Fever[1,8]	…	…	…	2	9	9	13	1	5	29
West Nile Fever	…	…	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis	21	38	14	41	41	90	61	77	54	51
Tetanus[4]	16	16	14	10	18	12	12	10	17	24
Japanese Encephalitis	32	35	29	37	17	18	33	22	32	16
Tuberculosis[3]										
Smear-positive	5,784	5,748	5,542	5,734	5,559	5,210	5,027	4,559	4,739	4,592
Others	11,000	10,724	9,836	8,746	8,706	8,126	8,210	8,075	7,599	6,936
Congenital Rubella Syndrome	-	-	-	1	1	-	-	-	-	-
Acute Hepatitis										
B[1]	378	321	245	202	231	152	172	163	97	97
C	195	172	154	153	124	131	41	34	34	10
D	12	4	5	1	4	1	1	-	-	-
E[1]	18	21	11	12	14	9	7	12	9	9
Unspecified	-	10	9	10	22	18	13	10	10	5
Mumps[4]	1,081	1,158	971	1,208	1,145	1,068	1,125	1,171	1,061	1,170
Legionnaires' Disease[1]	106	38	56	56	69	84	102	97	88	115
Invasive Haemophilus Influenzae Type b Infection	20	12	16	16	12	14	12	9	3	10
Syphilis[5]	5,209	5,305	5,808	5,798	6,526	6,668	6,482	6,372	5,896	6,346
Gonorrhea[5]	1,978	1,515	1,437	1,442	1,621	2,137	2,265	1,978	1,983	2,155
Neonatal Tetanus[8]	…	…	…	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications[1]	50	142	11	12	373	29	16	59	153	12
HIV Infection[6]	1,521*	3,403	2,938	1,935	1,752	1,648	1,796	1,967	2,224	2,244
AIDS[6]	257*	506	579	1,061	849	930	1,087	1,075	1,280	1,430

Note:[1]The case amount in 2013 contained imported cases, including six rubella, 29 chikungunya fever, nine acute hepatitis B, five acute hepatitis E, four legionnaires' disease, and one enteroviruses infection with severe complications.

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

[4]Calculation for tetanus and mumps were based on reported cases only.

[5]The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

[8]The 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, 2004-2013

Unit: Person

Disease	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Category III										
Hansen's Disease[5]	5*	9	11	12	8	7	5	5	13	7
Category IV										
Herpesvirus B Infection[8]	…	…	…	-	-	-	-	-	-	-
Leptospirosis[1,8]	…	…	…	10	47	203	77	55	91	82
Melioidosis[8]	…	…	…	4	45	44	45	45	29	19
Botulism[8]	…	…	…	4	11	1	11	6	-	1
Invasive Pneumococcal Disease[1,8]	…	…	…	169	805	690	737	837	749	625
Q Fever[1,8]	…	…	…	17	91	89	89	35	53	48
Endemic Typhus Fever[1,8]	…	…	…	6	31	40	42	26	37	27
Lyme Disease[8]	…	…	…	1	2	-	-	-	1	-
Tularemia[8]	…	…	…	-	-	-	-	1	-	-
Scrub Typhus[1]	368	462	384	510	492	353	402	322	460	538
Varicella[4]	13,219	13,600	10,563	11,110	11,877	10,931	9,218	9,867	8,373	10,276
Cat-Scratch Disease[1,8,12]	…	…	…	1	28	26	65	48	76	23
Toxoplasmosis[1,8]	…	…	…	2	3	7	5	5	12	15
Complicated Influenza[1]	19	33	25	26	22	1,134	882	1,481	1,595	965
Creutzfeldt-Jakob Disease[5,8]	…	…	…	-	-	3	-	-	-	-
NDM-1 Enterobacteriaceae[9,12]	…	…	…	…	…	…	1	-	-	-
Brucellosis[10]	…	…	…	…	…	…	…	…	-	-
Category V										
Rift Valley Fever	…	…	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	…	…	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Lassa Fever	…	…	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome Coronavirus Infections[11]	…	…	…	…	…	…	…	…	-	-
H7N9 Influenza[1,13]	…	…	…	…	…	…	…	…	…	2

Note:[1]The case amount in 2013 contained imported cases, including three leptospirosis, one invasive pneumococcal disease, five Q fever, one endemic typhus fever, one scrub typhus, one cat-scratch disease, one toxoplasmosis, six complicated influenza, and two H7N9 influenza.

[4]Calculation for varicella was based on reported cases only.

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

[8]The 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.

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

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

[11]The data of "Severe acute respiratory infections associated with novel coronavirus" has been calculated as one of Category V Notifiable Disease since October 3, 2012 which has been renamed as "Middle east respiratory syndrome coronavirus infections" since June 7, 2013.

[12] Cat-scratch disease and NDM-1 enterobacteriaceae have been removed from Category IV Notifiable Disease since June 7, 2013

[13] statistics of H7N9 influenza data has been generated since the proclamation validated on April 3, 2013.

*The collative case numbers see the appendix 1.

Table 6 Analysis of time intervals between diagnosis and reporting for notifiable diseases — by locality, 2013

Unit: Day

Locality	2012			2013						
	No.	Average	Median	No.	Average	Median	<=24 hours		>24 hours	
							No.	%	No.	%
Total	6,750	0.3	0	6,397	0.3	0	6,355	99.3	42	0.7
Taipei City	873	0.4	0	939	0.3	0	938	99.9	1	0.1
New Taipei City	539	0.7	0	511	0.2	0	510	99.8	1	0.2
Taichung City	424	0.3	0	467	0.3	0	466	99.8	1	0.2
Tainan City	1,426	0.2	0	575	0.2	0	575	100.0	-	0.0
Kaohsiung City	2,049	0.4	0	1,340	0.4	0	1,340	100.0	-	0.0
Yilan County	47	0.1	0	61	0.2	0	61	100.0	-	0.0
Taoyuan County	504	0.2	0	662	0.4	0	625	94.4	37	5.6
Hsinchu County	9	0.1	0	20	0.2	0	20	100.0	-	0.0
Miaoli County	32	0.0	0	62	0.1	0	62	100.0	-	0.0
Changhua County	181	0.2	0	201	0.1	0	201	100.0	-	0.0
Nantou County	26	0.1	0	30	0.1	0	30	100.0	-	0.0
Yunlin County	56	0.1	0	54	0.1	0	54	100.0	-	0.0
Chiayi County	20	0.2	0	18	0.2	0	18	100.0	-	0.0
Pingtung County	164	0.2	0	953	0.3	0	953	100.0	-	0.0
Taitung County	55	0.5	0	38	0.4	0	38	100.0	-	0.0
Hualien County	151	0.2	0	229	0.2	0	228	99.6	1	0.4
Penghu County	30	0.3	0	28	0.2	0	28	100.0	-	0.0
Keelung City	27	0.1	0	37	0.1	0	37	100.0	-	0.0
Hsinchu City	75	0.1	0	115	0.4	0	114	99.1	1	0.9
Chiayi City	55	0.1	0	46	0.1	0	46	100.0	-	0.0
Kinmen County	7	0.1	0	9	0.4	0	9	100.0	-	0.0
Lienchiang County	-	-	-	2	0.5	0	2	100.0	-	0.0

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, 2013

Unit: Day

Locality	2012			2013						
	No.	Average	Median	No.	Average	Median	<=24 hours		>24 hours	
							No.	%	No.	%
Total	6,750	0.0	0	6,397	0.0	0	6,397	100.0	-	-
Taipei City	873	0.0	0	939	0.0	0	939	100.0	-	-
New Taipei City	539	0.0	0	511	0.0	0	511	100.0	-	-
Taichung City	424	0.0	0	467	0.0	0	467	100.0	-	-
Tainan City	1,426	0.0	0	575	0.0	0	575	100.0	-	-
Kaohsiung City	2,049	0.0	0	1,340	0.0	0	1,340	100.0	-	-
Yilan County	47	0.0	0	61	0.0	0	61	100.0	-	-
Taoyuan County	504	0.0	0	662	0.0	0	662	100.0	-	-
Hsinchu County	9	0.0	0	20	0.0	0	20	100.0	-	-
Miaoli County	32	0.0	0	62	0.0	0	62	100.0	-	-
Changhua County	181	0.0	0	201	0.0	0	201	100.0	-	-
Nantou County	26	0.0	0	30	0.0	0	30	100.0	-	-
Yunlin County	56	0.0	0	54	0.0	0	54	100.0	-	-
Chiayi County	20	0.0	0	18	0.0	0	18	100.0	-	-
Pingtung County	164	0.0	0	953	0.0	0	953	100.0	-	-
Taitung County	55	0.0	0	38	0.0	0	38	100.0	-	-
Hualien County	151	0.0	0	229	0.0	0	229	100.0	-	-
Penghu County	30	0.0	0	28	0.0	0	28	100.0	-	-
Keelung City	27	0.0	0	37	0.0	0	37	100.0	-	-
Hsinchu City	75	0.0	0	115	0.0	0	115	100.0	-	-
Chiayi City	55	0.0	0	46	0.0	0	46	100.0	-	-
Kinmen County	7	0.1	0	9	0.1	0	9	100.0	-	-
Lienchiang County	-	-	-	2	0.0	0	2	100.0	-	-

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, 2013

Unit: Day

Locality	2012			2013						
	No.	Average	Median	No.	Average	Median	<=24 hours		>24 hours	
							No.	%	No.	%
Total	6,750	0.0	0	6,397	0.0	0	6,397	100.0	-	-
Taipei City	873	0.0	0	939	0.0	0	939	100.0	-	-
New Taipei City	539	0.0	0	511	0.0	0	511	100.0	-	-
Taichung City	424	0.0	0	467	0.0	0	467	100.0	-	-
Tainan City	1,426	0.0	0	575	0.0	0	575	100.0	-	-
Kaohsiung City	2,049	0.0	0	1,340	0.0	0	1,340	100.0	-	-
Yilan County	47	0.0	0	61	0.0	0	61	100.0	-	-
Taoyuan County	504	0.0	0	662	0.0	0	662	100.0	-	-
Hsinchu County	9	0.0	0	20	0.0	0	20	100.0	-	-
Miaoli County	32	0.0	0	62	0.0	0	62	100.0	-	-
Changhua County	181	0.0	0	201	0.0	0	201	100.0	-	-
Nantou County	26	0.0	0	30	0.0	0	30	100.0	-	-
Yunlin County	56	0.0	0	54	0.0	0	54	100.0	-	-
Chiayi County	20	0.0	0	18	0.0	0	18	100.0	-	-
Pingtung County	164	0.0	0	953	0.0	0	953	100.0	-	-
Taitung County	55	0.0	0	38	0.0	0	38	100.0	-	-
Hualien County	151	0.0	0	229	0.0	0	229	100.0	-	-
Penghu County	30	0.0	0	28	0.0	0	28	100.0	-	-
Keelung City	27	0.0	0	37	0.0	0	37	100.0	-	-
Hsinchu City	75	0.0	0	115	0.0	0	115	100.0	-	-
Chiayi City	55	0.0	0	46	0.0	0	46	100.0	-	-
Kinmen County	7	0.0	0	9	0.0	0	9	100.0	-	-
Lienchiang County	-	-	-	2	0.0	0	2	100.0	-	-

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, 2013

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	192	205	195	95.1	40	58	32	31	96.9	25	14	-	-	-	-
Taipei City	21	47	45	95.7	11	6	7	7	100.0	6	-	-	-	-	-
New Taipei City	7	31	31	100.0	4	2	2	2	100.0	2	-	-	-	-	-
Taichung City	72	30	30	100.0	7	29	6	6	100.0	5	10	-	-	-	-
Tainan City	6	9	9	100.0	1	1	2	2	100.0	1	-	-	-	-	-
Kaohsiung City	40	36	31	86.1	8	9	6	5	83.3	6	1	-	-	-	-
Yilan County	-	1	1	100.0	1	-	-	-	-	-	-	-	-	-	-
Taoyuan County	22	26	26	100.0	7	7	7	7	100.0	4	-	-	-	-	-
Hsinchu County	2	2	2	100.0	-	-	-	-	-	-	-	-	-	-	-
Miaoli County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changhua County	3	2	2	100.0	1	2	1	1	100.0	1	-	-	-	-	-
Nantou County	-	2	2	100.0	-	-	-	-	-	-	-	-	-	-	-
Yunlin County	4	1	1	100.0	-	-	-	-	-	-	3	-	-	-	-
Chiayi County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pingtung County	4	3	1	33.3	-	-	-	-	-	-	-	-	-	-	-
Taitung County	1	1	0	0.0	-	-	-	-	-	-	-	-	-	-	-
Hualien County	-	2	2	100.0	-	-	-	-	-	-	-	-	-	-	-
Penghu County	4	2	2	100.0	-	2	-	-	-	-	-	-	-	-	-
Keelung City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hsinchu City	6	9	9	100.0	-	-	-	-	-	-	-	-	-	-	-
Chiayi City	-	1	1	100.0	-	-	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, 2013

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	11	-	-	-	-	59	91	86	94.5	8	50	82	78	95.1	7
Taipei City	-	-	-	-	-	9	22	21	95.5	3	6	18	17	94.4	2
New Taipei City	-	-	-	-	-	3	16	16	100.0	1	2	13	13	100.0	1
Taichung City	10	-	-	-	-	12	11	11	100.0	1	11	13	13	100.0	1
Tainan City	-	-	-	-	-	2	3	3	100.0	-	3	4	4	100.0	-
Kaohsiung City	-	-	-	-	-	18	17	15	88.2	2	12	13	11	84.6	-
Yilan County	-	-	-	-	-	-	-	-	-	-	-	1	1	100.0	1
Taoyuan County	1	-	-	-	-	6	9	9	100.0	1	8	10	10	100.0	2
Hsinchu County	-	-	-	-	-	2	2	2	100.0	-	-	-	-	-	-
Miaoli County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Changhua County	-	-	-	-	-	1	1	1	100.0	-	-	-	-	-	-
Nantou County	-	-	-	-	-	-	1	1	100.0	-	-	1	1	100.0	-
Yunlin County	-	-	-	-	-	1	1	1	100.0	-	-	-	-	-	-
Chiayi County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pingtung County	-	-	-	-	-	2	1	-	0.0	-	2	2	1	50.0	-
Taitung County	-	-	-	-	-	-	1	-	0.0	-	1	-	-	-	-
Hualien County	-	-	-	-	-	-	2	2	100.0	-	-	-	-	-	-
Penghu County	-	-	-	-	-	2	2	2	100.0	-	-	-	-	-	-
Keelung City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hsinchu City	-	-	-	-	-	1	2	2	100.0	-	5	7	7	100.0	-
Chiayi City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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)					
Birth cohort	2012			2012			2011		
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	237,497	232,816	98.03	237,497	231,183	97.34	200,667	192,959	96.16
Taipei City	33,519	32,813	97.89	33,519	32,787	97.82	29,203	28,015	95.93
Taichung City	29,726	29,249	98.40	29,726	29,050	97.73	25,086	24,208	96.50
Tainan City	18,058	17,800	98.57	18,058	17,629	97.62	14,842	14,339	96.61
Kaohsiung City	25,644	25,242	98.43	25,644	24,988	97.44	21,594	20,449	94.70
New Taipei City	40,344	39,081	96.87	40,344	38,836	96.26	32,739	31,617	96.57
Yilan County	3,913	3,875	99.03	3,913	3,836	98.03	3,431	3,306	96.36
Taoyuan County	20,759	20,311	97.84	20,759	20,167	97.15	18,217	17,745	97.41
Hsinchu County	6,726	6,624	98.48	6,726	6,540	97.23	5,925	5,675	95.78
Miaoli County	6,343	6,265	98.77	6,343	6,187	97.54	5,235	5,026	96.01
Changhua County	13,426	13,216	98.44	13,426	13,205	98.35	11,149	10,874	97.53
Nantou County	4,208	4,116	97.81	4,208	4,062	96.53	3,560	3,347	94.02
Yunlin County	6,179	6,100	98.72	6,179	6,066	98.17	5,242	5,079	96.89
Chiayi County	3,917	3,874	98.90	3,917	3,853	98.37	3,385	3,278	96.84
Pingtung County	6,479	6,423	99.14	6,479	6,326	97.64	5,397	5,172	95.83
Taitung County	1,945	1,917	98.56	1,945	1,880	96.66	1,753	1,633	93.15
Hualien County	2,926	2,873	98.19	2,926	2,796	95.56	2,564	2,360	92.04
Penghu County	997	994	99.70	997	980	98.29	807	781	96.78
Keelung City	2,436	2,383	97.82	2,436	2,354	96.63	1,988	1,890	95.07
Hsinchu City	6,110	5,941	97.23	6,110	5,912	96.76	5,205	4,981	95.70
Chiayi City	2,265	2,190	96.69	2,265	2,196	96.95	2,063	1,956	94.81
Kinmen County	1,433	1,387	96.79	1,433	1,393	97.21	1,140	1,089	95.53
Lienchiang County	144	142	98.61	144	140	97.22	142	139	97.89

Note 1. Source:National Immunization Information System.
2. Vaccination period: January 2011 to December 2013.
3. Data was calculated in May 2014.

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

Unit: %

Vaccines	Hepatitis B						Varicella			MMR		
Birth cohort	2012			2012			2011			2011		
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	237,497	232,704	97.98	237,497	231,427	97.44	200,667	196,819	98.08	200,667	197,208	98.28
Taipei City	33,519	33,007	98.47	33,519	32,791	97.83	29,203	28,463	97.47	29,203	28,556	97.78
Taichung City	29,726	29,185	98.18	29,726	29,096	97.88	25,086	24,659	98.30	25,086	24,676	98.37
Tainan City	18,058	17,624	97.60	18,058	17,556	97.22	14,842	14,620	98.50	14,842	14,647	98.69
Kaohsiung City	25,644	25,230	98.39	25,644	25,025	97.59	21,594	21,152	97.95	21,594	21,163	98.00
New Taipei City	40,344	39,039	96.77	40,344	38,908	96.44	32,739	32,067	97.95	32,739	32,139	98.17
Yilan County	3,913	3,886	99.31	3,913	3,837	98.06	3,431	3,371	98.25	3,431	3,366	98.11
Taoyuan County	20,759	20,402	98.28	20,759	20,205	97.33	18,217	18,017	98.90	18,217	18,046	99.06
Hsinchu County	6,726	6,615	98.35	6,726	6,567	97.64	5,925	5,814	98.13	5,925	5,824	98.30
Miaoli County	6,343	6,240	98.38	6,343	6,202	97.78	5,235	5,137	98.13	5,235	5,159	98.55
Changhua County	13,426	13,201	98.32	13,426	13,217	98.44	11,149	10,982	98.50	11,149	11,010	98.75
Nantou County	4,208	4,117	97.84	4,208	4,071	96.74	3,560	3,465	97.33	3,560	3,481	97.78
Yunlin County	6,179	6,119	99.03	6,179	6,077	98.35	5,242	5,165	98.53	5,242	5,177	98.76
Chiayi County	3,917	3,842	98.09	3,917	3,851	98.32	3,385	3,338	98.61	3,385	3,345	98.82
Pingtung County	6,479	6,421	99.10	6,479	6,343	97.90	5,397	5,299	98.18	5,397	5,302	98.24
Taitung County	1,945	1,916	98.51	1,945	1,883	96.81	1,753	1,699	96.92	1,753	1,704	97.20
Hualien County	2,926	2,863	97.85	2,926	2,807	95.93	2,564	2,478	96.65	2,564	2,479	96.68
Penghu County	997	988	99.10	997	982	98.50	807	796	98.64	807	798	98.88
Keelung City	2,436	2,390	98.11	2,436	2,360	96.88	1,988	1,942	97.69	1,988	1,945	97.84
Hsinchu City	6,110	5,942	97.25	6,110	5,923	96.94	5,205	5,089	97.77	5,205	5,110	98.17
Chiayi City	2,265	2,150	94.92	2,265	2,198	97.04	2,063	2,022	98.01	2,063	2,031	98.45
Kinmen County	1,433	1,385	96.65	1,433	1,388	96.86	1,140	1,103	96.75	1,140	1,109	97.28
Lienchiang County	144	142	98.61	144	140	97.22	142	141	99.30	142	141	99.30

Note 1. Source:National Immunization Information System.

2. Vaccination period: January 2011 to December 2013.

3. Data was calculated in May 2014.

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

Unit: %

Vaccines	JE					
Birth cohort	2011			2010		
	2nd dose			3rd dose		
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	200,800	193,247	96.24	169,740	155,552	91.64
Taipei City	29,202	27,906	95.56	23,416	21,518	91.89
Taichung City	25,098	24, 338	96.97	20,993	19,578	93.26
Tainan City	14,831	14,379	96.95	12,617	11,872	94.10
Kaohsiung City	21,590	20,723	95.98	18,221	16,642	91.33
New Taipei City	32,760	31,703	96.77	27,045	23,782	87.93
Yilan County	3,426	3,308	96.56	3,114	2,967	95.28
Taoyuan County	18,393	17,552	95.43	15,943	14,386	90.23
Hsinchu County	5,923	5,700	96.24	5,065	4,729	93.37
Miaoli County	5,241	5,064	96.62	4,134	3,835	92.77
Changhua County	11,169	10,897	97.56	9,424	9,015	95.66
Nantou County	3,576	3,244	90.72	3,320	2,773	83.52
Yunlin County	5,241	5,086	97.04	4,621	4,408	95.39
Chiayi County	3,367	3,287	97.62	2,985	2,855	95.64
Pingtung County	5,399	5,231	96.89	4,954	4,612	93.10
Taitung County	1,753	1,648	94.01	1,589	1,412	88.86
Hualien County	2,567	2,382	92.79	2,304	2,084	90.45
Penghu County	806	789	97.89	643	626	97.36
Keelung City	1,979	1,890	95.50	2,035	1,884	92.58
Hsinchu City	5,211	5,015	96.24	4,414	3,945	89.37
Chiayi City	1,998	1,891	94.64	1,863	1,666	89.43
Kinmen County	1,128	1,073	95.12	951	878	92.32
Lienchiang County	142	141	99.30	89	85	95.51

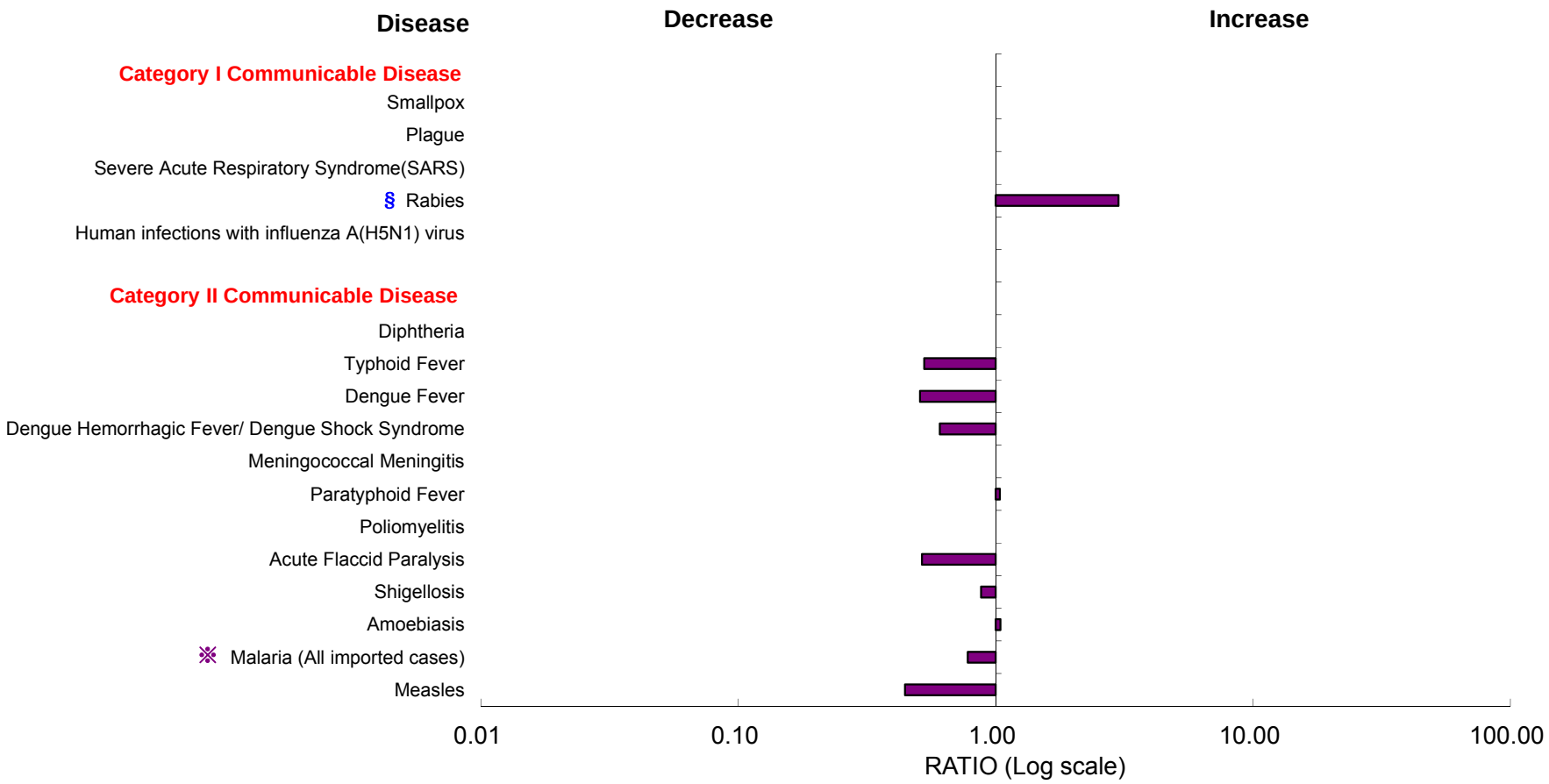
Note 1. Source:National Immunization Information System.
2. Vaccination period:January 2010 to December 2013.
3. Data was calculated in May 2014.

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

Unit: %

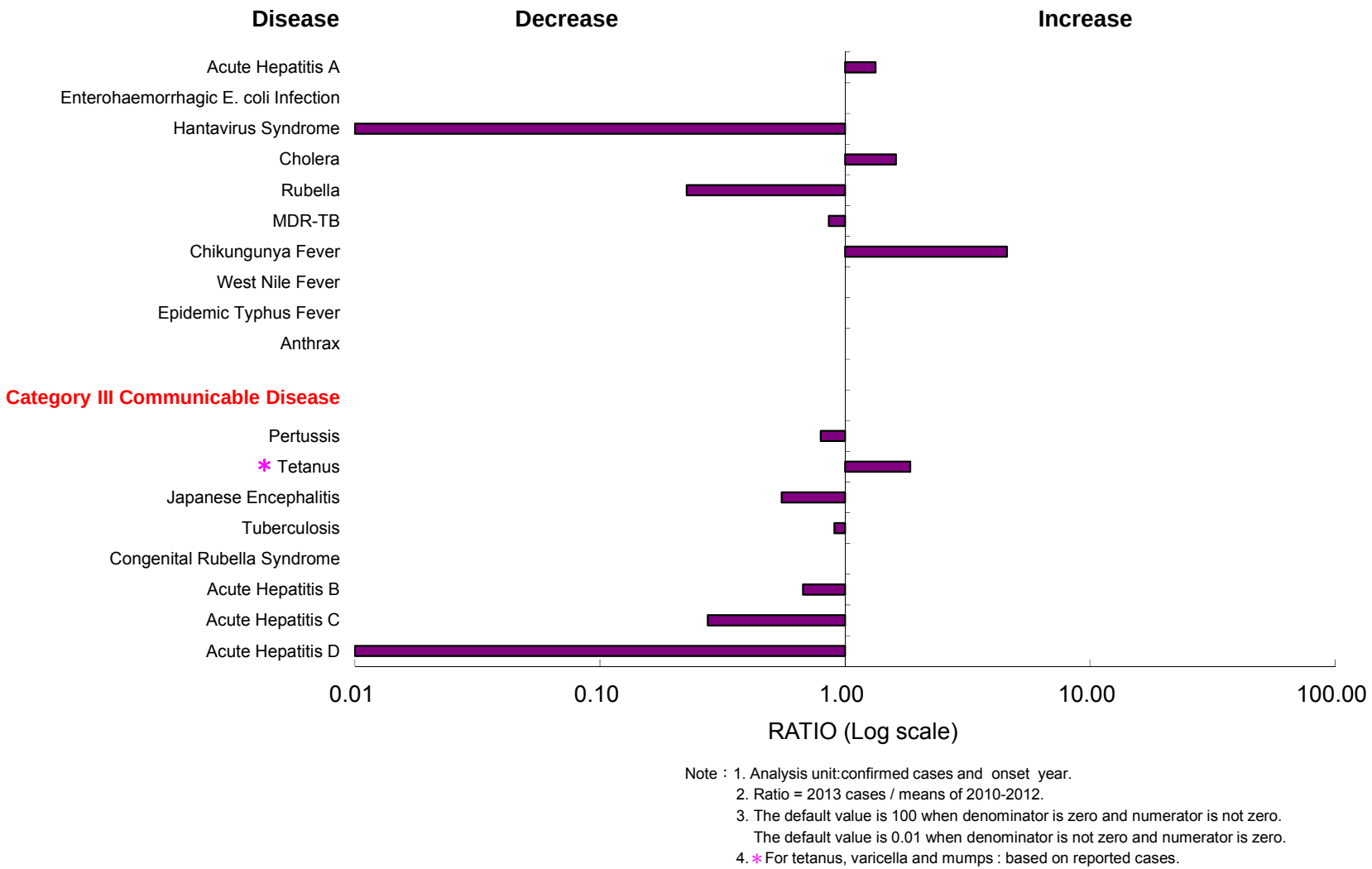
Vaccines	JE			MMR			Tdap-IPV		
Birth cohort	First grade of primary school								
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	201,357	197,003	97.84	200,866	196,791	97.97	200,430	196,482	98.03
Taipei City	19,004	18,661	98.20	18,706	18,396	98.34	18,355	17,822	97.10
Taichung City	26,009	25,220	96.97	26,119	25,529	97.74	26,119	25,681	98.32
Tainan City	15,419	15,145	98.22	15,272	15,150	99.20	15,231	15,098	99.13
Kaohsiung City	22,799	22,330	97.94	22,711	22,516	99.14	22,711	22,488	99.02
New Taipei City	33,869	32,735	96.65	33,943	32,293	95.14	33,943	32,441	95.57
Yilan County	3,870	3,752	96.95	3,789	3,711	97.94	3,790	3,707	97.81
Taoyuan County	20,592	20,379	98.97	20,588	20,461	99.38	20,588	20,435	99.26
Hsinchu County	5,913	5,839	98.75	5,942	5,877	98.91	5,942	5,886	99.06
Miaoli County	5,122	5,028	98.16	5,123	5,002	97.64	5,123	5,012	97.83
Changhua County	11,652	11,537	99.02	11,652	11,559	99.20	11,652	11,554	99.16
Nantou County	4,289	4,250	99.09	4,346	4,248	97.75	4,297	4,257	99.07
Yunlin County	6,162	6,128	99.45	6,159	6,125	99.45	6,159	6,118	99.33
Chiayi County	3,930	3,900	99.24	3,933	3,872	98.45	3,933	3,874	98.50
Pingtung County	6,771	6,555	96.81	6,683	6,474	96.87	6,683	6,475	96.89
Taitung County	2,023	1,925	95.16	1,940	1,832	94.43	1,942	1,833	94.39
Hualien County	2,780	2,766	99.50	2,786	2,661	95.51	2,785	2,752	98.82
Penghu County	697	690	99.00	701	699	99.71	701	699	99.71
Keelung City	2,734	2,650	96.93	2,733	2,677	97.95	2,733	2,673	97.80
Hsinchu City	4,478	4,299	96.00	4,481	4,457	99.46	4,481	4,442	99.13
Chiayi City	2,579	2,554	99.03	2,594	2,591	99.88	2,597	2,577	99.23
Kinmen County	587	582	99.15	587	584	99.49	587	580	98.81
Lienchiang County	78	78	100.00	78	77	98.72	78	78	100.00

Note 1. Source:National Immunization Information System.
2. Vaccination period: September 2012 to June 2013
3. Data was calculated in May 2014.



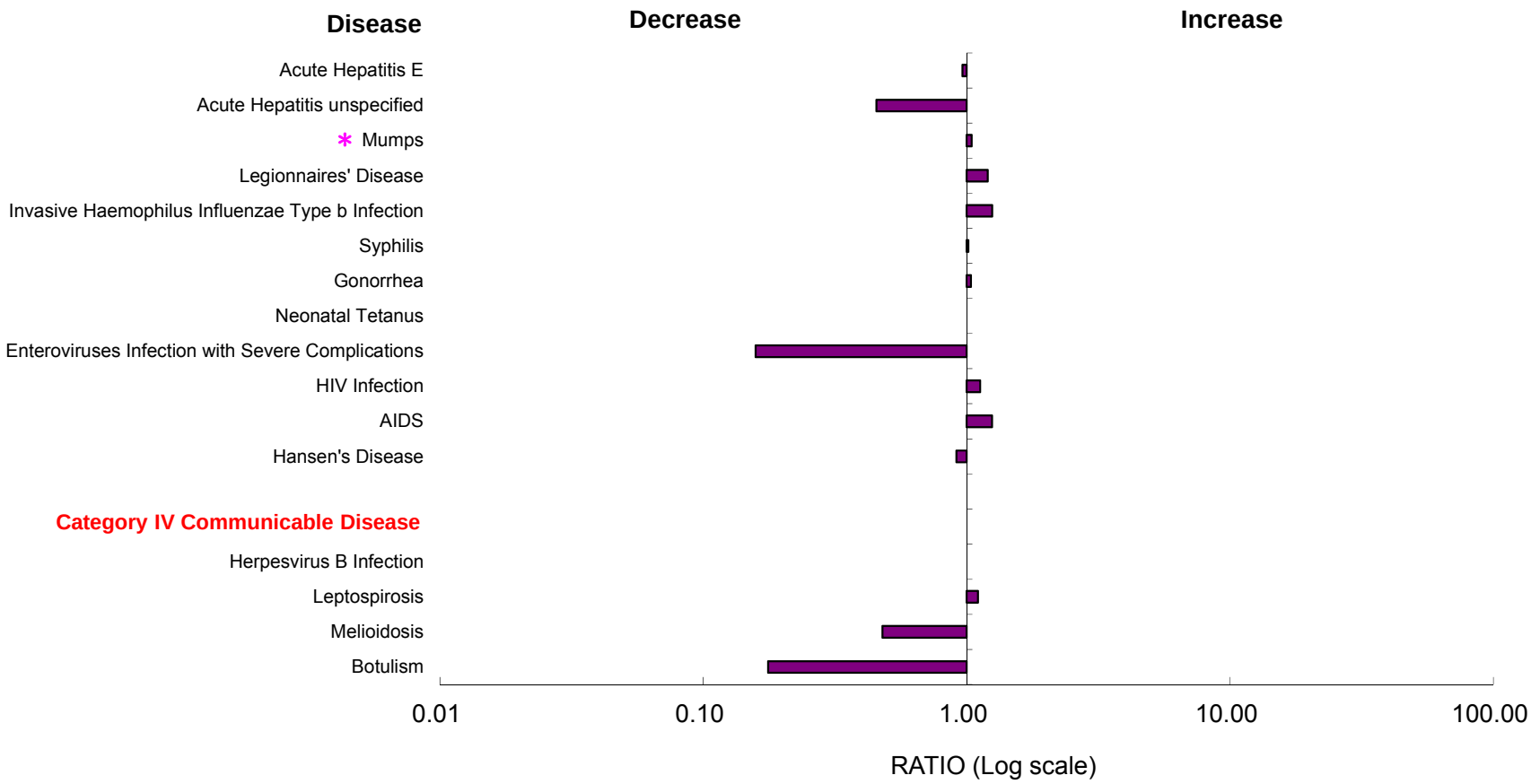
Note：1. Analysis unit:confirmed cases and onset year.
2. Ratio = 2013 cases / means of 2010-2012.
3. The default value is 100 when denominator is zero and numerator is not zero.
The default value is 0.01 when denominator is not zero and numerator is zero.
4. § There was one imported case of rabies in 2012 and 2013.
5. ※ The World Health Organization (WHO) has declared Taiwan as a malaria eradication region in 1965.

Figure 1　Comparison of 2013 total confirmed cases of notifiable diseases with historical data



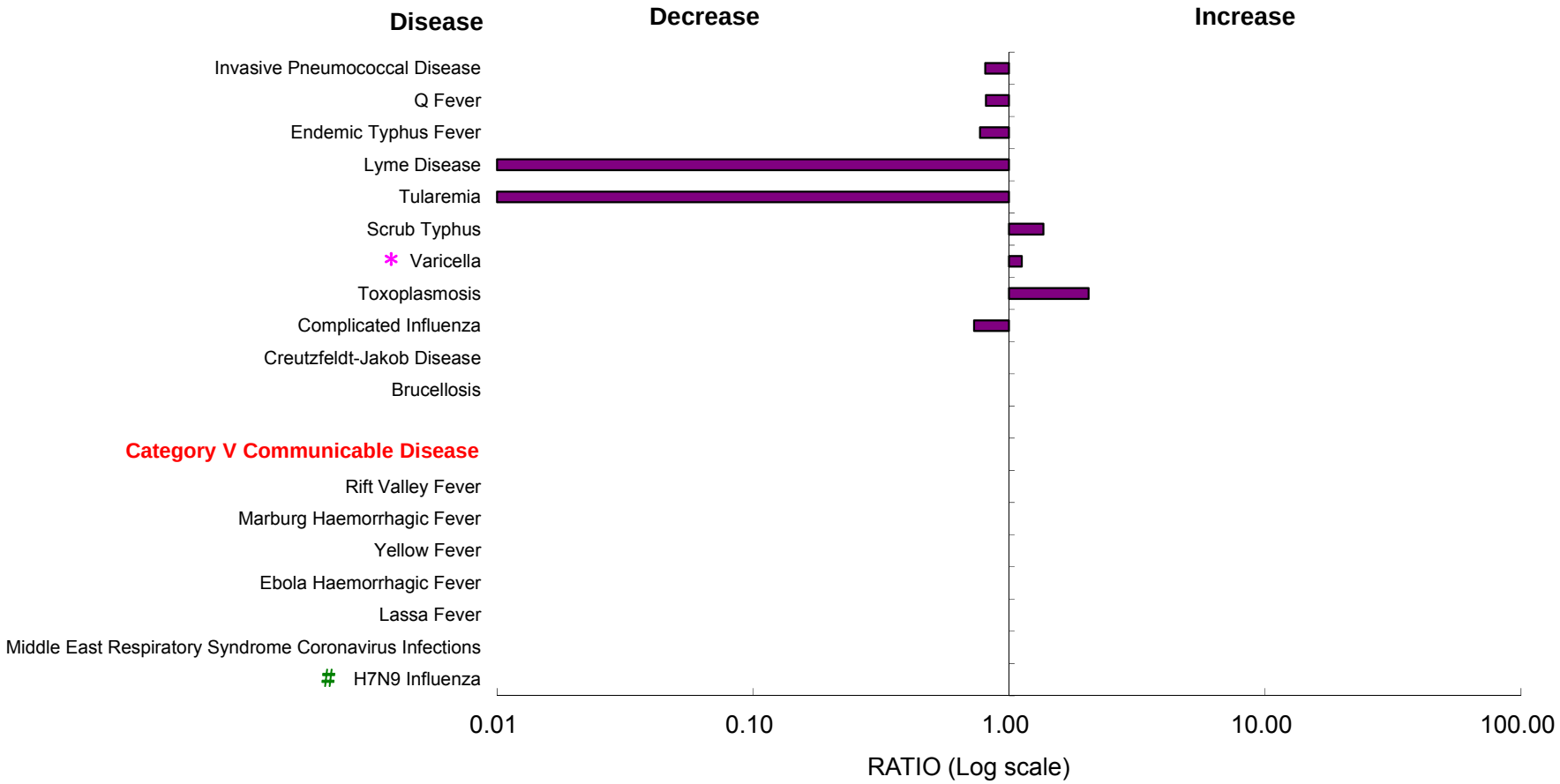
Note：1. Analysis unit:confirmed cases and onset year.
2. Ratio = 2013 cases / means of 2010-2012.
3. The default value is 100 when denominator is zero and numerator is not zero.
The default value is 0.01 when denominator is not zero and numerator is zero.
4. * For tetanus, varicella and mumps : based on reported cases.

Figure 1 ***(Continued)*** **Comparison of 2013 total confirmed cases of notifiable diseases with historical data**



Note：1.Analysis unit:confirmed cases and onset year.
2. Ratio = 2013 cases / means of 2010-2012.
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.
5. For syphilis and gonorrhea: based on the date of diagnosis.
6. The numbers of HIV infection and AIDS were estimated by the date of diagnosis, and foreign nationality were excluded.

Figure 1 *(Continued)* Comparison of 2013 total confirmed cases of notifiable diseases with historical data



Note：1. Analysis unit:confirmed cases and onset year.
2. Ratio = 2013 cases / means of 2010-2012.
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.
5. For Creutzfeldt-Jakob disease: based on the date of diagnosis.
6. # The statistics of H7N9 influenza was valided since April 3, 2013, hence there was no comparative analysis results with historical data.
7.Cat-scratch disease and NDM-1 enterobacteriaceae have been removed from Category IV since June 7, 2013, and therefore not included in the figure.

Figure 1 *(Continued)* Comparison of 2013 total confirmed cases of notifiable diseases with historical data

PART II

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 in hospitals, while the "healthcare-associated infection" (HAI) generally refers to infections that patients acquire while receiving treatment for medical or surgical conditions. HAIs may 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 simple ananlytical function, so that reporting hospitals can analyze their own data on line 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 420 hospitals are reporting during 2013. Hospitals may use TNIS system to manage HAI cases and generate individual hospital reports. Also, Taiwan CDC periodically feedback hospitals with national 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 2013.
2. Distribution of HAI rates by type of location in the ICUs of medical centers and regional hospitals in 2013.
3. Distribution of device-associated infection rates in the ICUs of medical centers and regional hospitals in 2013.
4. Distribution of major sites of HAI in ICU patients from medical centers and regional hospitals in 2013.
5. Common pathogens of HAI for patients in the ICUs of medical centers in 2013.
6. Common pathogens of HAI for patients in the ICUs of regional hospitals in 2013.
7. Antimicrobial resistance proportions of selected pathogens of HAI in the ICUs of medical centers and regional hospitals in 2013.

V. Surveillance method and main results

All the analytical results in this report were derived from TNIS database. In 2013, there were 20 medical centers(192 ICU units) and 82 regional hospitals(267 ICU units) reported both HAI cases and the number of patient-days to TNIS system for at least one calendar month. (Table 11, data updated to 2014/06/16). 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 5,524 episodes of HAI events occurred during 732,607 patient-days in the ICUs of 20 medical centers, the rate of infections was 7.5‰. However, in the ICUs of the 82 regional hospitals, there were 4,878 episodes of HAI events occurred during 888,244 patient-days, the rate of infections was 5.5‰. 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 medical ICU for medical centers (9.0‰) and highest in surgical ICU for regional hospitals (6.9‰). 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 0.5‰ in medical centers and 0.3‰ in regional hospitals, and the median of central line-associated bloodstream infection (CLABSI) rates were 4.0‰ and 2.1‰ 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 regional hospitals is higher than that in medical centers, which are 0.5‰ and 0.3‰ respectively.

The distribution of site-specific HAIs in ICUs is shown in Table 13, with the bloodstream infections topped the list in medical centers (40.3%), followed by urinary tract (37.6%), and pneumonia (9.4%). In regional hospitals, the urinary tract infections topped the list (37.2%), followed by bloodstream infections (30.5%), and pneumonia (19.7%). 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, *Escherichia coli* and *Pseudomonas aeruginosa* in medical centers; Meanwhile, the top three pathogens in the ICUs were *Candida* species*, Escherichia coli*, *Acinetobacter baumannii* in 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 72.9%, the proportion of *Klebsiella pneumoniae* isolates those were resistant to carbapenem (CRKP) is 15.2%, the proportion of *P. aeruginosa* isolates those were resistant to carbapenem (CRPA) is 17.6%, the proportion of enterococci isolates those were resistant to vancomycin (VRE) is 28.7%, and the proportion of *S. aureus* isolates those were resistant to oxacillin (MRSA) is 70.8%. Meanwhile, the antimicrobial resistance proportions of selected pathogens isolated from patients acquired HAIs in the ICUs of regional hospitals were 76.5%, 12.8%, 14.8%, 22.3 % and 73.3% for CRAB, CRKP, CRPA, VRE and MRSA, respectively.

VI. 2013 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, 2013

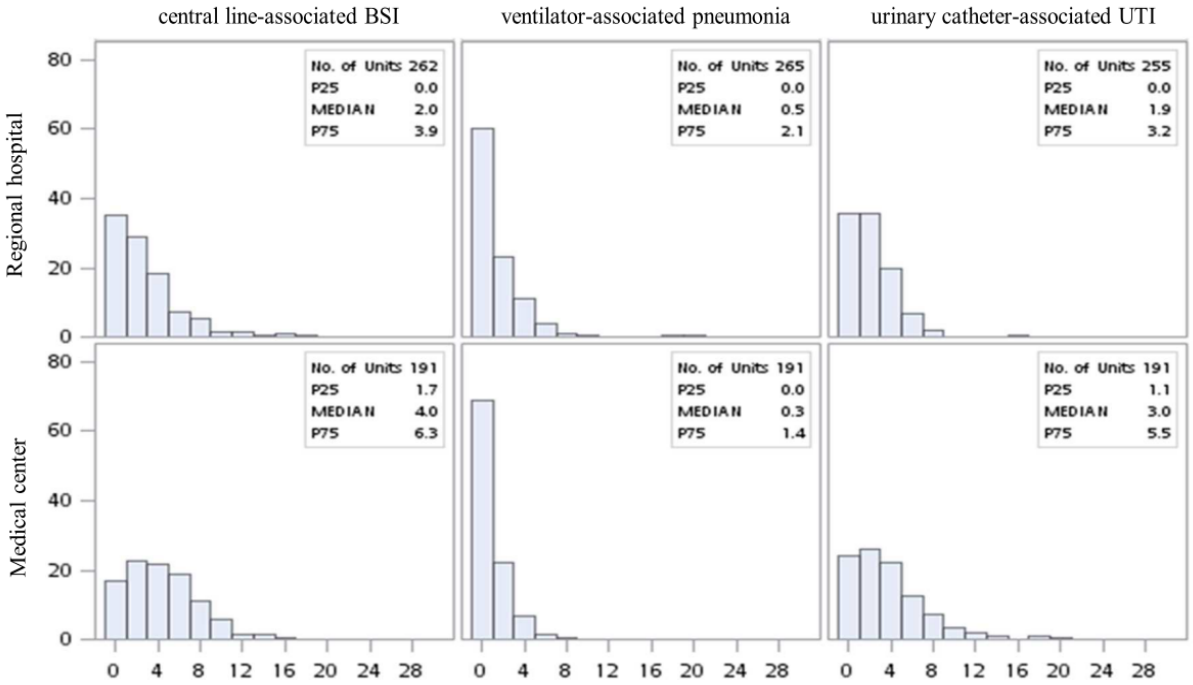
Hospital level	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs
Medical center	20	1,550	20	1,486	20	1,375	20	1,395
Regional hospital	82	1,314	82	1,257	82	1,194	82	1,201

Note: Data updated to 2014/06/16

Table 12 Distribution of healthcare-associated infection rates by type of locations in the ICUs of medical centers and regional hospitals, 2013

Hospital level	Type of locations	No. of units	No. of HAIs	Patient -days	HAI Rate* (‰)	Percentile		
						25th	50th	75th
Medical center	Medical ICU	48	1,907	211,800	9	6.6	8.6	10.8
	Surgical ICU	62	2,296	258,098	8.9	6.1	9.0	11.0
	Cardiology ICU	14	400	57,455	6.96	4.4	5.5	8.9
	Pediatric ICU	41	394	126,467	3.12	1.6	2.3	4.4
	Medical/surgical	27	527	78,787	6.69	4.1	6.6	11.1
	Total	192	5,524	732,607	7.54	4.3	7.0	10.1
Regional hospital	Medical ICU	65	1,385	283,368	4.89	2.8	4.6	6.4
	Surgical ICU	44	1,163	169,131	6.88	4.6	6.3	8.5
	Cardiology ICU	13	175	45,895	3.81	3.3	3.7	4.2
	Pediatric ICU	61	79	50,989	1.55	1.5	2.5	3.7
	Medical/surgical	84	2,076	338,861	6.13	3.9	5.3	7.6
	Total	267	4,878	888,244	5.49	3.1	4.7	7.0

Note: *healthcare-associated infection 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, 2013

Table13 Distribution of major types of healthcare-associated infection in the ICU patients from medical centers and regional hospitals, 2013

Types of infection	Medical center		Regional hospital	
	No.	%	No.	%
Urinary tract	2,183	37.6	1,847	37.2
Bloodstream	2,337	40.3	1,516	30.5
Pneumonia	547	9.4	979	19.7
Surgical site	321	5.5	242	4.9
Other	418	7.2	382	7.7
Total	5,806	100.0	4,966	100.0

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, 2013

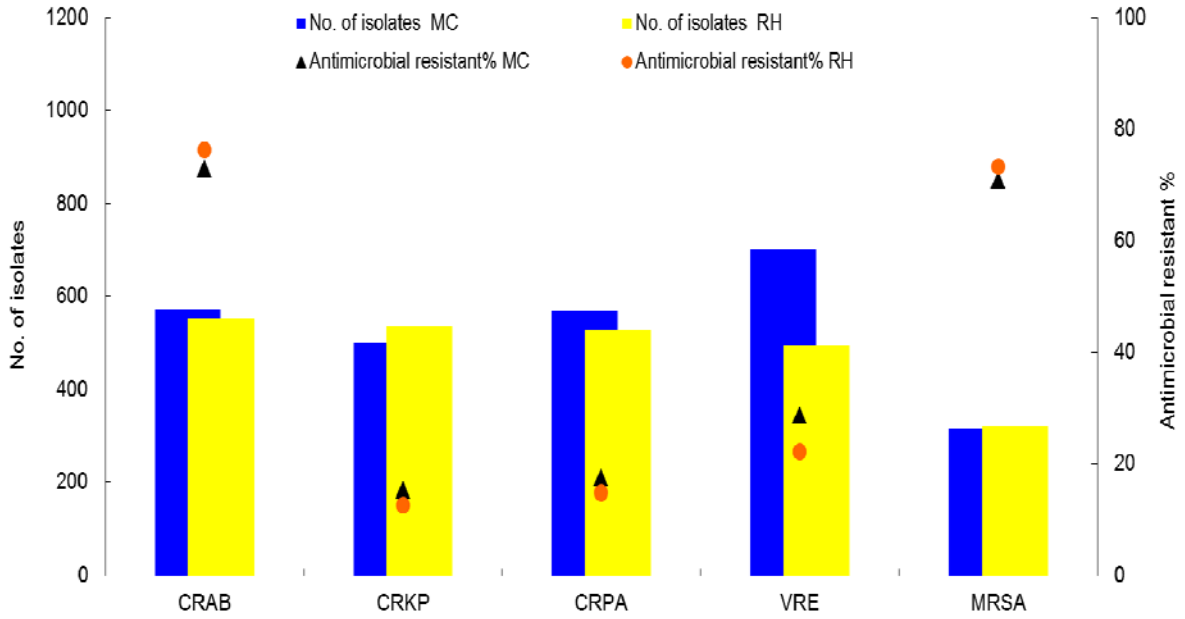
Pathogens	Total		Types of Infection									
			Urinary tract		Bloodstream		Pneumonia		Surgical site		Others	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
Candida spp.	1	985	1	610	2	302	11	8	3	35	6	30
C. albicans		607		396		153		7		29		22
Other *Candida* spp. or NOS		378		214		149		1		6		8
Escherichia coli	2	630	2	444	9	108	8	16	2	36	7	26
Pseudomonas aeruginosa	3	589	4	203	5	149	1	121	1	62	1	54
Acinetobacter baumannii	4	581	6	100	1	308	2	113	6	29	5	31
Klebsiella pneumoniae	5	518	5	154	3	232	3	79	3	35	9	18
Yeast-like	6	395	3	320	14	40	9	9	11	11	10	15
Staphylococcus aureus	7	328	10	17	4	184	4	52	7	26	2	49
Enterobacter spp.	8	318	7	88	7	138	6	39	5	32	8	21
E. cloacae		251		76		107		30		24		14
Other *Enterobacter* spp. or NOS		67		12		31		9		8		7
Coagulase negative *staphylococci*	9	230	9	20	8	136	26	1	7	26	3	47
Stenotrophomonas maltophilia	10	222	16	7	6	148	5	40	9	13	14	10
Others		1,838		508		912		94		169		155
Total	-	6,634	-	2,471	-	2,657	-	572	-	474	-	460

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, 2013

Pathogens	Total		Types of Infection									
			Urinary tract		Bloodstream		Pneumonia		Surgical site		Others	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
Candida spp.	1	771	1	499	2	184	9	29	6	23	6	36
C. albicans		538		365		95		28		21		29
Other *Candida* spp. or NOS		233		134		89		1		2		7
Escherichia coli	2	645	2	433	6	104	7	40	1	40	7	28
Acinetobacter baumannii	3	611	6	102	1	202	1	217	5	24	1	66
Klebsiella pneumoniae	4	600	3	194	4	155	3	184	4	29	5	38
Pseudomonas aeruginosa	5	587	4	192	7	98	2	214	1	40	3	43
Staphylococcus aureus	6	360	9	29	3	172	4	93	6	23	3	43
Enterobacter spp.	7	241	8	61	8	81	6	48	3	34	8	17
E. cloacae		166		45		58		27		25		11
Other *Enterobacter* spp. or NOS		75		16		23		21		9		6
Coagulase negative *staphylococci*	8	213	10	26	5	113	21	3	8	21	2	50
Yeast-like	9	174	5	109	11	46	14	6	13	3	9	10
Stenotrophomonas maltophilia	10	130	14	7	9	62	5	52	11	5	13	4
Others		1,307		433		502		168		107		97
Total	-	5,639	-	2,085	-	1,719	-	1,054	-	349	-	432

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. “Antimicrobial resistant %” indicates the % of Isolates with susceptibility tested to be intermediate or resistant to the antimicrobial specified.
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, 2013

School-based Surveillance System

I. Introduction

School children are considered a high risk group for communicable diseases. While they spend a long period of time in schools every day which are usually densely populated, the outbreak of an infectious disease in class can easily reach epidemic proportion. For the purpose of diversifying the methods for monitoring the trends of communicable diseases, the Center for Disease Control (CDC) launched a pilot program for elementary schools to monitor and report infectious diseases in February 2001. Starting out with 20 reporting schools, there are now 674 elementary schools voluntarily taking part in the program that aims to systemically gather communicable disease data among school children for outbreak analysis and interpretation, and as reference for assessment and implementation of disease control measures.

The school-based surveillance system is a simple, flexible, specific and sensitive communicable disease surveillance and reporting system that can timely and effectively reflect epidemic situation to facilitate timely adoption of control measures and prevent the spread of disease in school. In addition, grasping the long-term trends of communicable diseases school children are susceptible to can aid the early detection of epidemics in communities. Thus the school-based surveillance system serves the dual purposes of safeguarding the health of school children and achieving control of communicable diseases.

II. Objectives of surveillance system

1. Understanding and establishing the long-term trends of communicable diseases in school and detecting abnormal volatility of diseases.
2. Detecting early epidemic trends in communities.
3. Providing background information for assessment of disease burden.

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 CDC supervises the upload and watches whether there are epidemics of other communicable diseases. The weekly data are compiled, analyzed, and graphed into a statistical chart that is periodically posted on the CDC 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≧38℃) and respiratory infection; and

(2) Muscular soreness or headache or extreme fatigue.

■ Epidemic analysis:

According to the data of CDC school-based surveillance system, the 2013 morbidity of influenza-like illness in schools was between 0.05% and 0.19%, which overall is lower than that in 2011 and comparable to the trends in 2012, except in weeks 15-19 of the year, during which epidemic condition showed an uptrend.

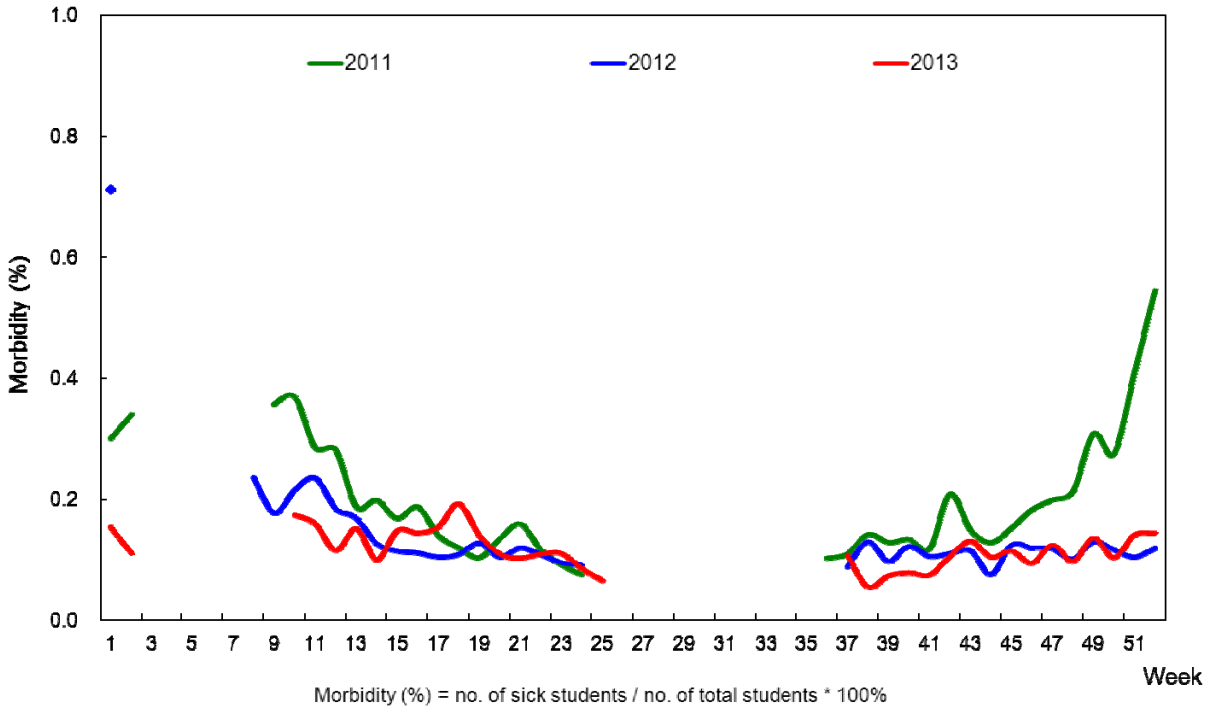


Figure 4　ILI morbidity reported by the School-based Surveillance System, 2011-2013

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:

According to the data of CDC school-based surveillance system, the 2013 morbidity of hand-foot-mouth disease or herpangina in schools was between 0.02% and 0.28%, which overall is higher than that in 2011 and 2012; the epidemic condition showed an uptrend in weeks 15-23 of the year, and the morbidity in weeks 22-25 was higher than that over the same period in the past two years.

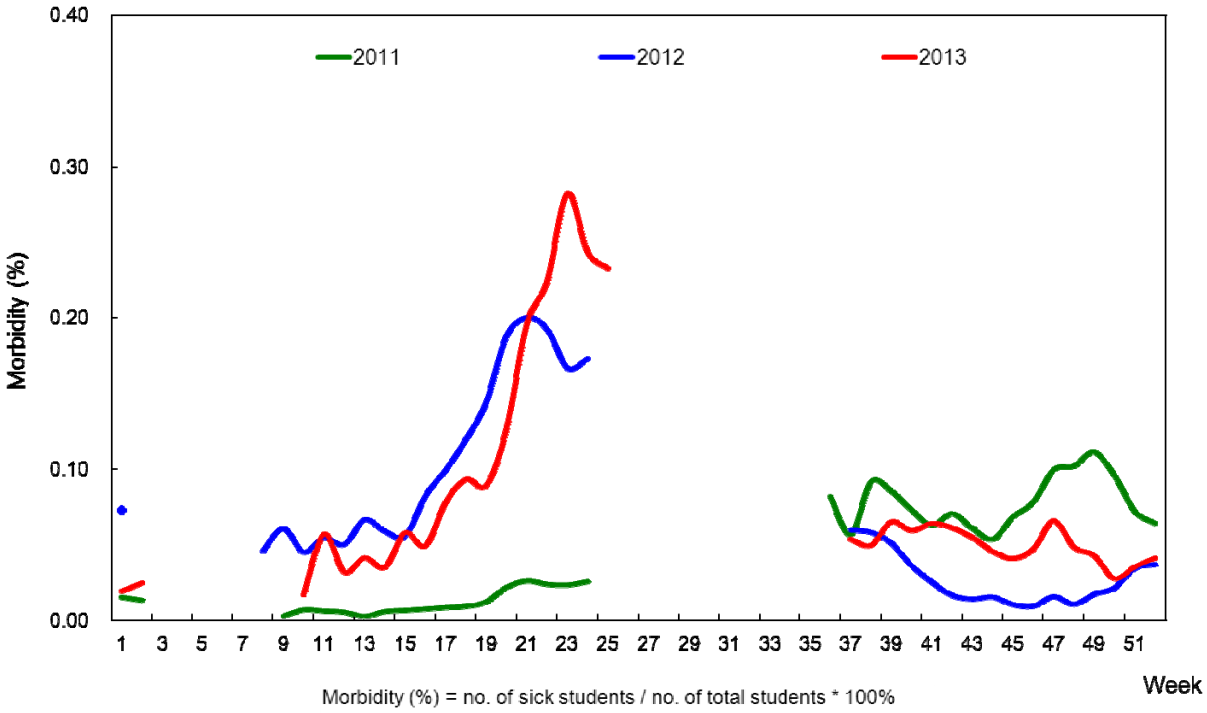


Figure 5 Enterovirus morbidity reported by the School-based Surveillance System, 2011-2013

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:

According to the data of CDC school-based surveillance system, the morbidity of diarrhea in schools in 2013 was between 0.02% and 0.16%, which overall is slight higher than that in 2011 and lower than that in 2012, except in weeks 1-2, 15-17 and 39-52 of the year, during which epidemic condition showed an uptrend.

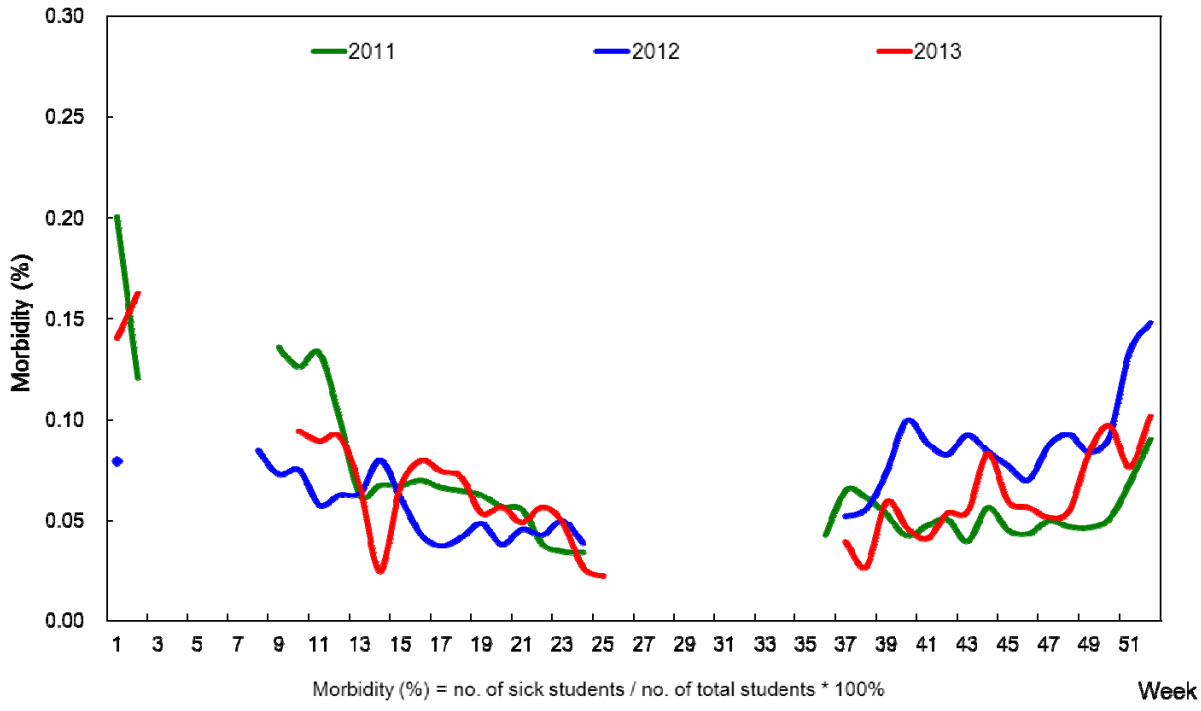


Figure 6 Diarrhea morbidity reported by the School-based Surveillance System, 2011-2013

4. Fever

■ Case definition:

Fever (ear temperature≧38℃) but free of the illness or symptoms of influenza-like illness, diarrhea, hand-foot-mouth disease or herpangina.

■ Epidemic analysis:

According to the data of CDC school-based surveillance system, the 2013 morbidity of fever in schools was between 0.23% and 0.56%, which did not show noticeable change in trends, and overall is lower than that in 2011 and slightly higher than that in 2012.

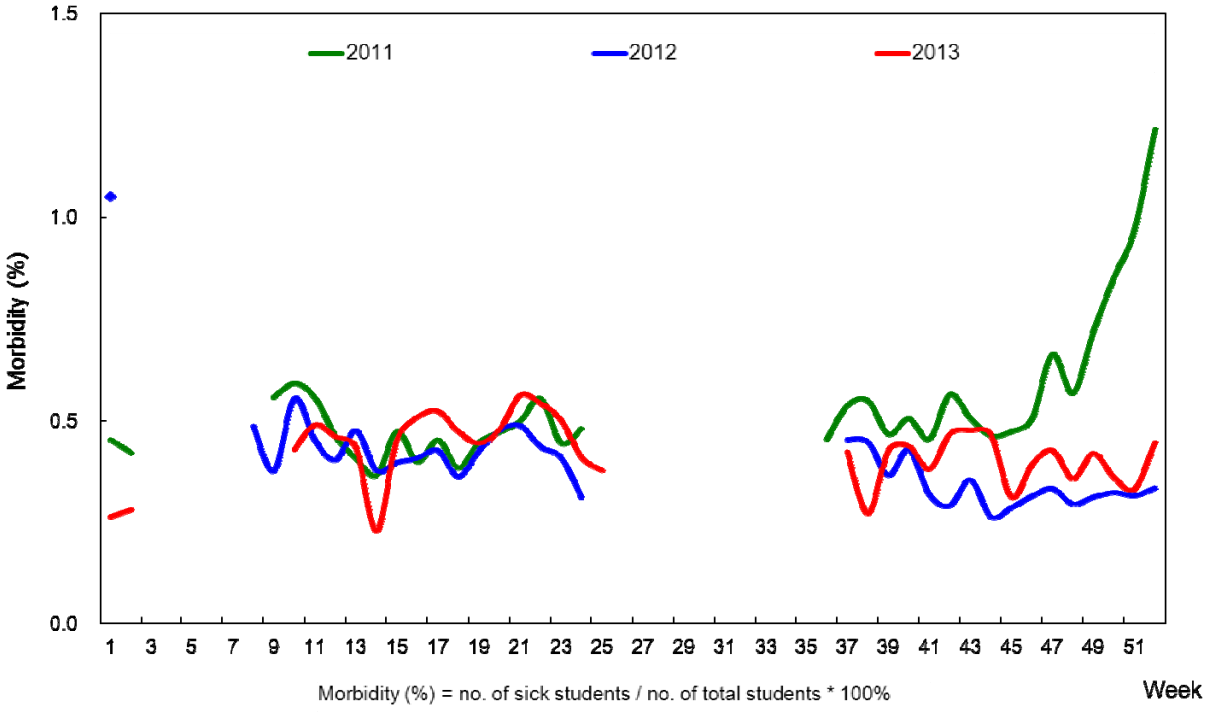


Figure 7　Fever morbidity reported by the School-based Surveillance System, 2011-2013

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 of CDC school-based surveillance system, the 2013 morbidity of Acute hemorrhagic conjunctivitis (AHC) in schools was between 0.017‰ and 0.515‰, which overall is higher than that in 2011 and 2012; the epidemic condition showed a noticeable uptrend in weeks 37-41 of the year.

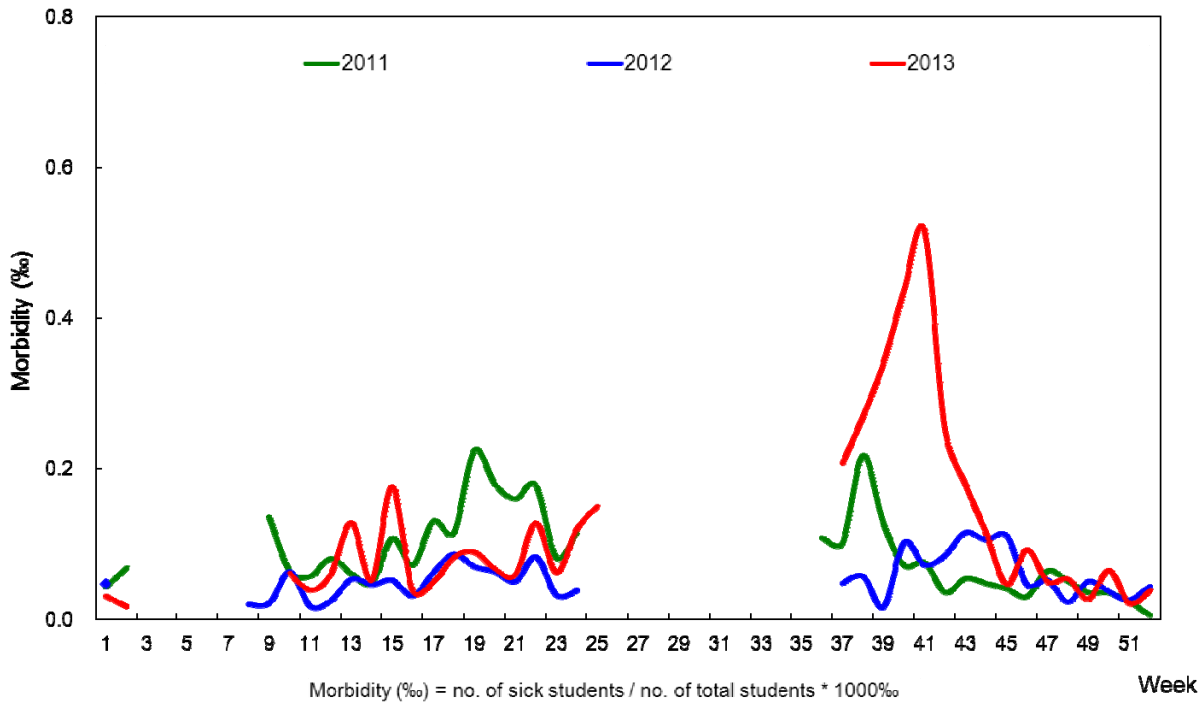


Figure 8 AHC morbidity reported by the School-based Surveillance System, 2011-2013

Laboratory Surveillance System

I. Origin

The island-wide outbreak of enterovirus epidemic in Taiwan in 1998 exposed the inadequacy of our virology laboratories in both quality and quantity. Thus the Department of Health (DOH) has been establishing contract virology laboratories across Taiwan since March 1999 and endeavors to improve Taiwan's capacity for virus testing and cultivate professionals in the field. Currently, contract laboratories are playing an important role in the monitoring of enterovirus and influenza viruses in communities. The laboratory surveillance targets mainly the prevalent types of enterovirus and influenza viruses to shed light on the activities of important virus strains in different seasons. Such information provides useful references in the formulation of epidemic prevention policies, and moreover, contributes to the construction of a valuable native viral genome database and a biomaterial database in Taiwan.

II. Distribution and responsibility areas of contracted laboratories

In 2013, 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 City), Changhua Christian Hospital (coverage area: Changhua 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

Sources of specimens 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.

1. Collection of specimens

Specimens collected by contract laboratories in 2013 totaled 11,464, averaging 955 specimens a month. The North Area provided the most specimens with 4,527 cases, whereas the Eastern Area had the fewest specimens with 1,510 cases.

2. Prevalence of enterovirus

In 2013, 1,005 strains of enterovirus were isolated. After typing by immunofluorescence assay (IFA), it was found the dominant type was Coxsackie virus A (761 strains or 75.6%), followed by 78 strains of Coxsackie virus B (7.8%), 21 strains of Enterovirus Type 71 (2.1%), 12 strains of Echovirus (1.2%), while 133 isolates (13.2%) were non-polio enterovirus (NPEV).

Of the Coxsackie virus A isolated, the dominant virus was CVA6 (58.6%). Of the Coxsackie virus B isolated, the dominant type was CVB4 (47.4%). Of the Echovirus isolated, Echovirus Type 30 was the dominant types with 75%. After typing of NPEV by gene sequencing, it was found the majority of NPEV were Echovirus Type 21, followed by CVA4, CVA6, CVA10, echovirus Type 3 and CVB2. (Figure 9).

To sum up, the top five types of enterovirus isolated in 2013 are CVA6 (52.5%), CVA10 (16.5%), CVA5 (6.2%), CVA4 (6.1%), and CVA2 (4.7%). Figure 10.

3. Prevalence of influenza virus

In 2013, 1,041 strains of influenza virus were isolated, including 593 strains of influenza A subtype H3 (57.0%), 28 strains (2.7%) of type B, and 420 strains of H1N1 (40.3%). Subtype H3 was the most prevalent strain in 2013; during weeks 8-30 of the year, subtype H3 and H1N1 were prevalent, whereas type B infection was reported only sporadically. (Figure 11).

After typing of isolated virus strains by gene sequencing, it was found that of influenza A viruses, all H1N1 subtype viruses were A/California/07/2009 and all H3N2 subtype were A/Victoria/361/2011. Of the influenza B virus, B/Brisbane/60/2008 (B/Vic) was the dominant type and a few B/Wisconsin/01/2010 (B/Yam) and B/Massachusetts/02/2012 (B/Yam) were isolated.

To sum up, the influenza virus types isolated in 2013 are ranked in sequence as INFAH3, H1N1, and INFB in Figure 12.

4. Epidemic situations of other respiratory tract viruses

Respiratory tract viruses other than influenza virus isolated totaled 1,107 cases, including adenovirus (50%), Parainfluenza virus (27.6%), Herpes simplex virus (HSV) (11.9%), Respiratory syncytial virus (RSV) (8%), and Cytomegalovirus (CMV) (2.4%) in Figure 13.

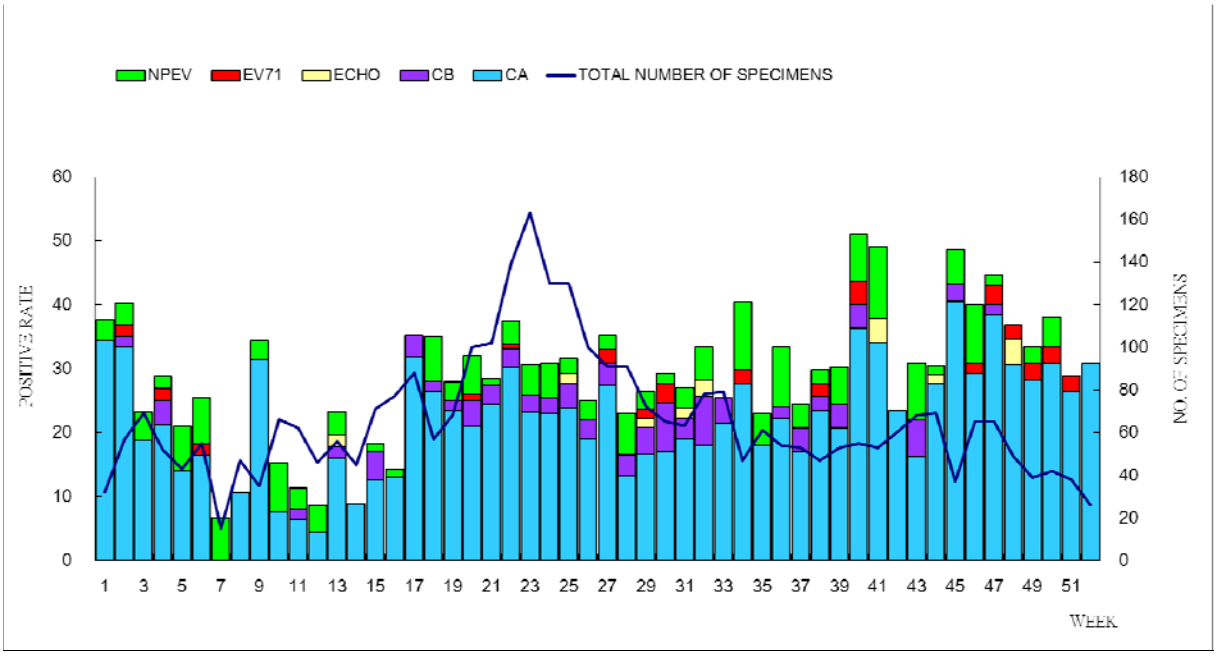


Figure 9 Enterovirus positive isolation rates in specimens collected by the sentinel physicians, 2013

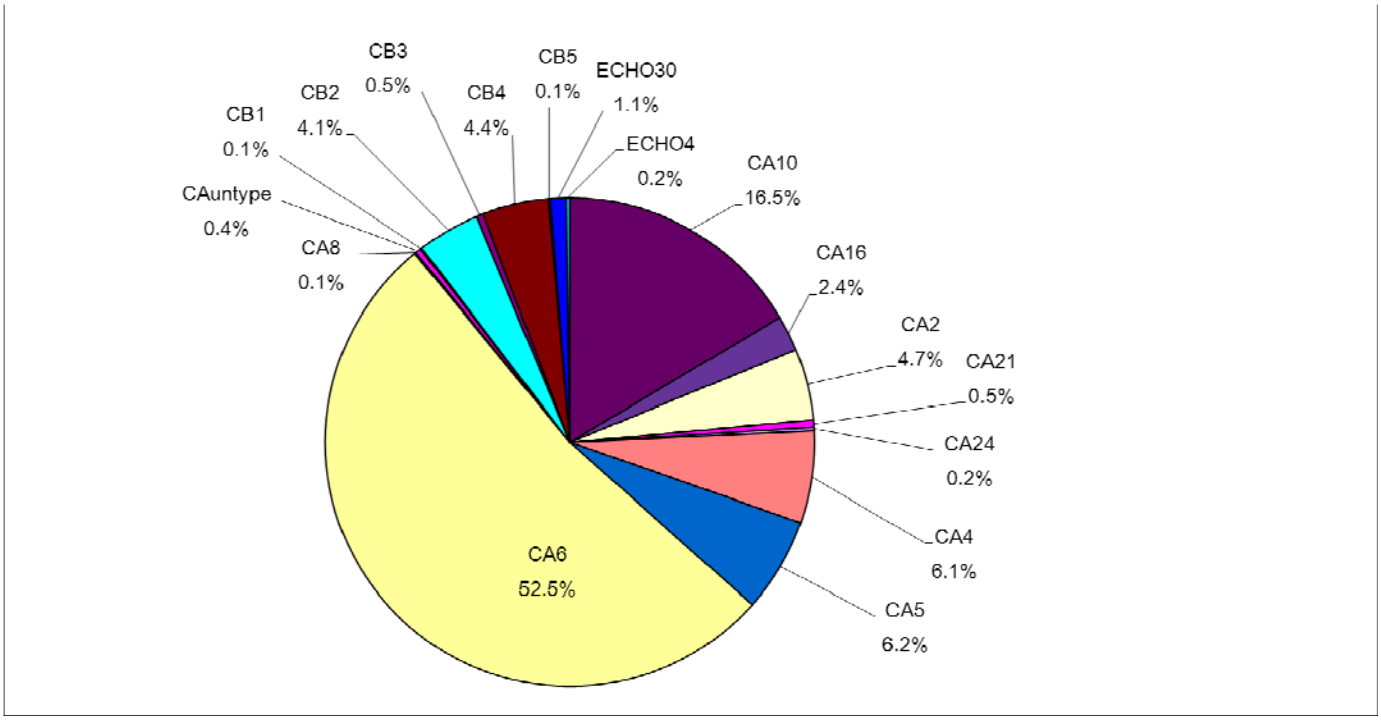


Figure 10 Strain ratios of enterovirus isolates from specimens collected by the sentinel physicians, 2013

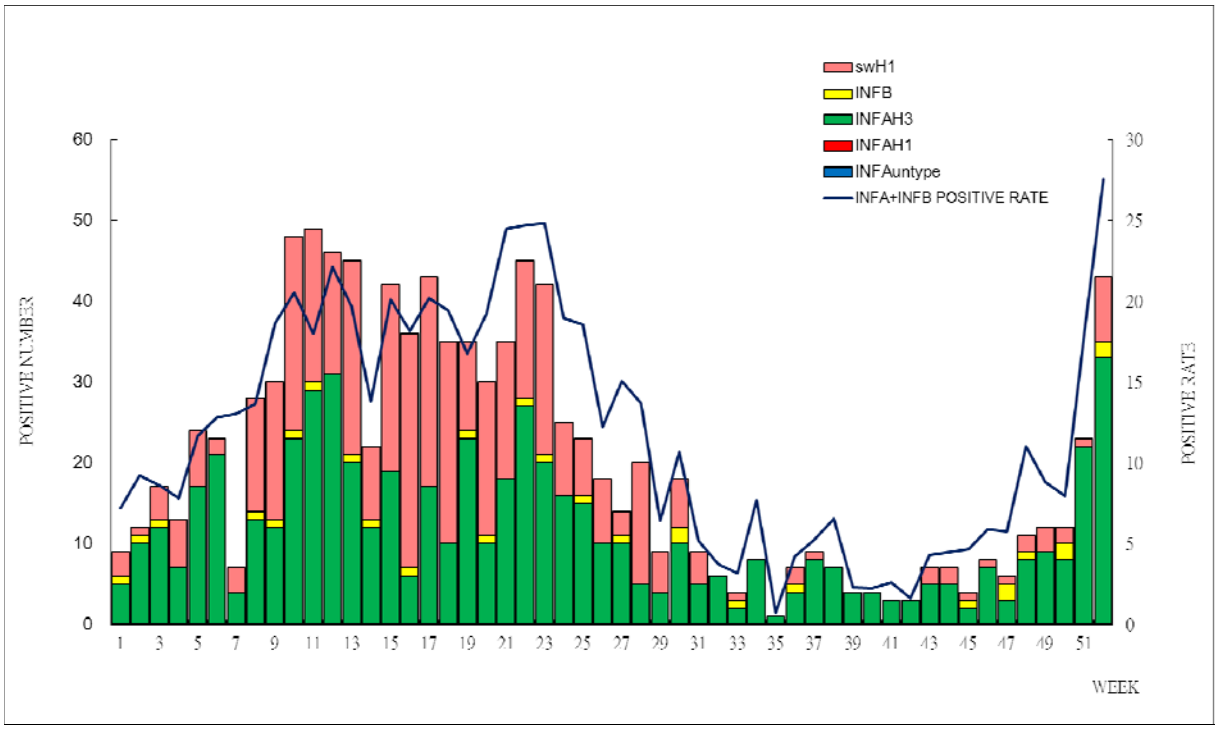


Figure 11 Isolation situations of influenza viruses from specimens collected by the sentinel physicians, 2013

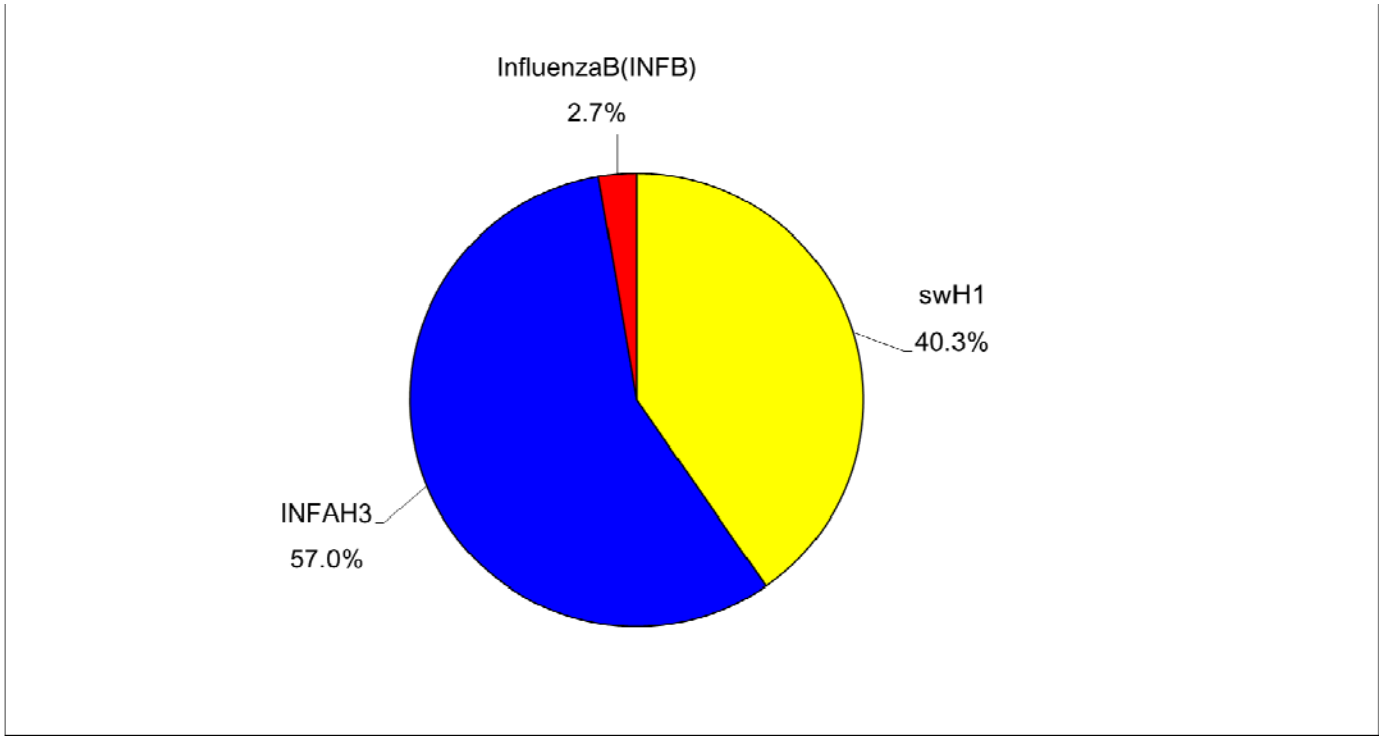


Figure 12 Strain ratios of influenza virus isolates from specimens collected by the sentinel physicians, 2013

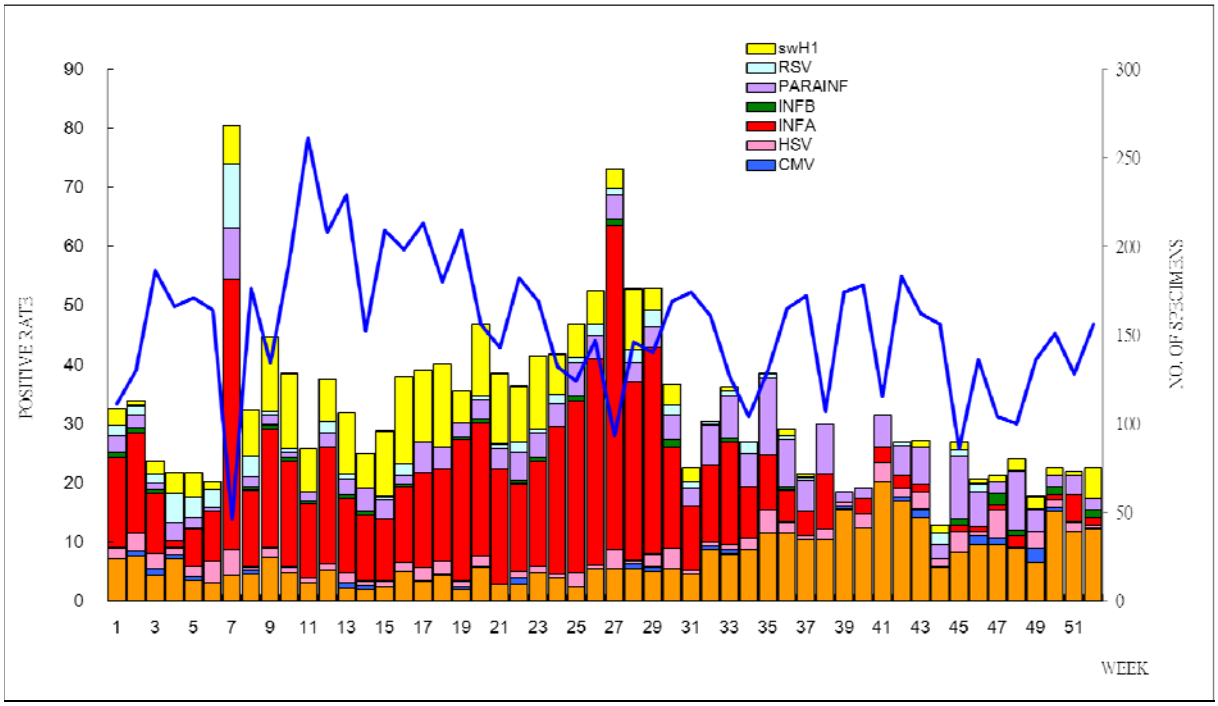


Figure 13 Positive isolation rates for respiratory tract viruses from specimens collected by the sentinel physicians, 2013

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 567,411person-times health examinations conducted on foreign workers in Taiwan in 2013, 4,624 person-times were unqualified, representing a unqualified rate of 0.81%, of which, intestinal parasite diseases accounted for the highest unqualified rate with 3,334 person-times (0.59%), followed by chest X-ray tested for tuberculosis where 1,208 person-times (0.21%) 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 2013, the number of inbound passengers was 19,072,276, and 12,924 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 115 dengue fever cases, 23 shigellosis cases, 17 chikungunya fever cases. In addition, in the section of communicable diseases not included on the list of notifiable communicable diseases, Taiwan CDC found 4 Norovirus cases and one Vibrio parahaemolyticus case. (Table 17)

Table 16 Physical examinations status of foreign labors, 2013

Country	Physical Examinations		Failed	X-ray	HIV	Syphilis	Parasites	Hansen's disease	Mental condition	Others
Thailand	At Entry	20,480	21 0.10%	9 0.04%	- -	1 0.00%	11 0.05%	- -	- -	- -
	Periodic	60,785	619 1.02%	212 0.35%	3 0.00%	3 0.00%	401 0.66%	- -	- -	- -
Indonesia	At Entry	67,490	164 0.24%	51 0.08%	3 0.00%	10 0.01%	100 0.15%	- -	- -	- -
	Periodic	178,080	1,723 0.97%	485 0.27%	18 0.01%	18 0.01%	1,201 0.67%	1 0.00%	- -	- -
Philippines	At Entry	25,273	43 0.17%	20 0.08%	1 0.00%	- -	22 0.09%	- -	- -	- -
	Periodic	82,716	795 0.96%	246 0.30%	9 0.01%	8 0.01%	532 0.64%	- -	- -	- -
Malaysia	At Entry	5	- -	- -	- -	- -	- -	- -	- -	- -
	Periodic	1	- -	- -	- -	- -	- -	- -	- -	- -
Vietnam	At Entry	46,188	100 0.22%	40 0.09%	2 0.00%	1 0.00%	57 0.12%	- -	- -	- -
	Periodic	86,393	1,159 1.34%	145 0.17%	3 0.00%	1 0.00%	1,010 1.17%	- -	- -	- -
Mongolia	At Entry	-	- -	- -	- -	- -	- -	- -	- -	- -
	Periodic	-	- -	- -	- -	- -	- -	- -	- -	- -
Others	At Entry	-	- -	- -	- -	- -	- -	- -	- -	- -
	Periodic	-	- -	- -	- -	- -	- -	- -	- -	- -
Total	At Entry	159,436	328 0.21%	120 0.08%	6 0.00%	12 0.01%	190 0.12%	- -	- -	- -
	Periodic	407,975	4,296 1.05%	1,088 0.27%	33 0.01%	30 0.01%	3,144 0.77%	1 0.00%	- -	- -
Total		567,411	4,624 0.81%	1,208 0.21%	39 0.01%	42 0.01%	3,334 0.59%	1 0.00%	- -	- -

Note1: The data of At Entry physical examination provided by the Ministry of Labor 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 2013

Month	Inbound passenger No.	Cases with symptom		Pathogen detected		Note
		Case No.	Case percentage (%)	Notifiable disease (case No.)	Others (case No.)	(Traveling country)
Jan.	1,284,017	1,465	0.11	Dengue fever (6), Shigellosis (4), Chikungunya fever (1)		Indonesia, Thailand, Myanmar(Dengue fever) / Philippines, India, Indonesia(Shigellosis) / Indonesia(Chikungunya fever)
Feb.	1,489,942	1,431	0.10	Dengue fever (8), Shigellosis (4), Chikungunya fever (1)		Indonesia, Thailand, Malaysia, Vietnam(Dengue feve) / China, India, Indonesia, Philippines(Shigellosis) / Indonesia(Chikungunya fever)
Mar.	1,599,292	1,090	0.07	Dengue fever (12), Chikungunya fever (3)		Malaysia, India, Indonesia, Singapore(Dengue fever) / Indonesia(Chikungunya fever)
Apr.	1,607,606	1,089	0.07	Dengue fever (1), Shigellosis (1), Chikungunya fever (1)		Thailand(Dengue fever) / Cambodia(Shigellosis) / Indonesia(Chikungunya fever)
May	1,440,235	867	0.06	Dengue fever (3)		India(Dengue fever)
Jun.	1,577,448	1,045	0.07	Dengue fever (17), Chikungunya fever (1)		Thailand, Myanmar, Indonesia, Singapore, Sri Lanka, Hong Kong(Dengue fever) / Indonesia(Chikungunya fever)
Jul.	1,733,312	1,129	0.07	Dengue fever (19), Shigellosis (7), Chikungunya fever (4)		Indonesia, Thailand, Cambodia, Philippines, Malaysia, Vietnam(Dengue fever) / Cambodia, Indonesia(Shigellosis) / Indonesia, Thailand, Singapore, Philippines(Chikungunya fever)
Aug.	1,733,449	1,082	0.06	Dengue fever (13), Shigellosis (4), Chikungunya fever (1)	Vibrio parahaemolyticus (1)	Indonesia, Thailand, Vietnam, Philippines, Malaysia(Dengue fever) / Vietnam, Thailand, China(Shigellosis) / Indonesia(Chikungunya fever) / China(Vibrio parahaemolyticus)
Sep.	1,683,485	834	0.05	Dengue fever (8), Shigellosis (2), Chikungunya fever (2)		India, Indonesia, Thailand, Philippines, Saint Lucia(Dengue fever) / Cambodia, Malaysia(Shigellosis) / Thailand, Philippines(Chikungunya fever)
Oct.	1,649,482	781	0.05	Dengue fever (8), Chikungunya fever (1)		Indonesia, Vietnam, Malaysia, Philippines(Dengue fever) / Indonesia(Chikungunya fever)
Nov.	1,621,089	809	0.05	Dengue fever (8), Shigellosis (1)		Malaysia, Vietnam, Singapore, India(Dengue fever) / Australia(Shigellosis)
Dec.	1,652,919	1,302	0.08	Dengue fever (12), Chikungunya fever (2)	Norovirus(4)	Philippines, Singapore, Malaysia, Indonesia(Dengue fever) / Philippines, Indonesia(Shigellosis) / Korea(Norovirus)
Total	**19,072,276**	**12,924**	**0.07**	**Dengue fever (115), Shigellosis (23), Chikungunya fever (17)**	**Norovirus(4), Vibrio parahaemolyticus (1)**	

Note 1: The source of Inbound passenger number is from Taiwan National Immigration Agency.
Note 2: The source of Cases with symptom is from the Taiwan CDC National Symptom Surveillance System.

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 2013 finds the following: the health bureaus of all counties and cities conducted 31,581 wards/villages, including 14,809 wards/villages in Level 0, 10,395 wards/villages in Level I, 3,834 wards/villages in Level II, 2,007 wards/villages in Level III, 446 wards/villages in Level IV, 70 wards/villages in Level V, 16 wards/villages in Level VI, 4 wards/villages in Level VII (Table 18). The number of wards/villages above Level II in the range of 5.1~33.1 displayed one peak from April to September, and declined after October (Figure 14).

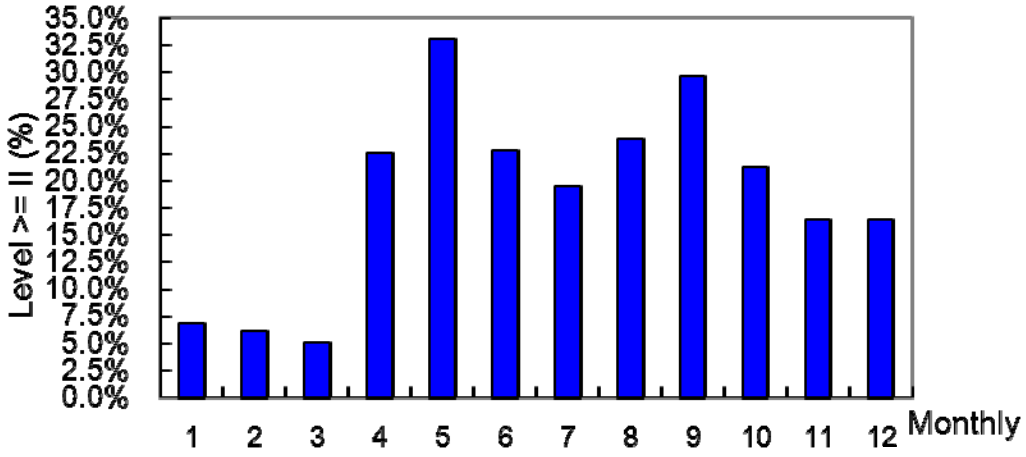


Figure 14 The percentage of wards/villages with Dengue fever vector by month in 2013

Table 18 Distribution of Breteua index, 2013

Locality	Villages (No. of times)	Breteua Index									
		0	1	2	3	4	5	6	7	8	9
Taichung City	1,256	609	632	14	-	1	-	-	-	-	-
Taipei City	1,373	694	571	73	33	2	-	-	-	-	-
Taitung County	951	348	493	93	12	5	-	-	-	-	-
Tainan City	5,831	2,368	2,280	815	323	44	1	-	-	-	-
Yilan County	1,162	977	170	15	-	-	-	-	-	-	-
Hualien County	1,206	1,082	120	4	-	-	-	-	-	-	-
Kinmen County	83	62	21	-	-	-	-	-	-	-	-
Nantou County	820	555	256	7	1	1	-	-	-	-	-
Pingtung County	1,490	357	579	334	141	50	19	7	3	-	-
Miaoli County	616	62	439	113	2	-	-	-	-	-	-
Taoyuan County	1,048	933	93	12	9	1	-	-	-	-	-
Kaohsiung City	7,557	901	2,632	2,177	1,450	337	50	9	1	-	-
Keelung City	113	98	15	-	-	-	-	-	-	-	-
Lienchiang County	46	46	-	-	-	-	-	-	-	-	-
Yunlin County	898	646	251	1	-	-	-	-	-	-	-
New Taipei City	2,366	1,530	797	29	8	2	-	-	-	-	-
Hsinchu City	340	185	149	6	-	-	-	-	-	-	-
Hsinchu County	749	564	175	7	3	-	-	-	-	-	-
Chiayi City	232	206	23	1	2	-	-	-	-	-	-
Chiayi County	1,876	1,828	41	7	-	-	-	-	-	-	-
Changhua County	1,178	562	528	87	1	-	-	-	-	-	-
Penghu County	390	196	130	39	22	3	-	-	-	-	-
Total	31,581	14,809	10,395	3,834	2,007	446	70	16	4	-	-

II. Malaria carrying mosquito

In 2013, mosquito light traps were hanged for collection of adult mosquitoes in 77 townships and 229 villages, including Xindian Dist., Ruifang Dist. and Shiding Dist. in New Taipei city; Guanyin Township and Luzhu Township in Taoyuan County; Guanxi Township and Hukou Township in Hsinchu County; Guoxing Township and Shuili Township in Nantou County; Gukeng Township, Linnei Township, Dongshi Township, Kouhu Township, Erlun Township, Dounan Township, Huwei Township, Shuilin Township, Citong Township , Mailiao Township, Taixi Township, Yuanchang Township, Xiluo Township, Douliu City, Beigang Township, Baozhong Township, Dapi Township, Tuku Township and Lunbei Township in Yunlin County; Zhongpu Township, Fanlu Township, Zhuqi Township, Meishan Township, Dapu Township, Liujiao Township, Puzi City, Yizhu Township, Xingang Township in Chiayi County; Zuozhen Dist., Nanhua Dist., Xinhua Dist., Nanxi Dist., Longqi Dist. and Guanmiao Dist. in Tainan City; Neimen Dist. and Qishan Dist. in Kaohsiung City; Sanxin Township, Datong Township, Nanao Township , Yuanshan Township, Luodong Township, Wujie Township, Yilan city, Dongshan Township, Jiaoxi Township, Toucheng Township, Zhuangwei Township and Suao Township in Yilan County; Jian Township, Xincheng Township, Zhuoxi Township and Wanrong Township in Yilan County; Luye Township, Yanping Township, Changbing Township, Daren Township, Guanshan Township, Donghe Township, Taimali Township, Jingfeng Township, Ludao Township, Dawu Township, Lanyu Township, Chishang Township, Haiduan Township, Taitung City, Chenggong Township and Beinan Township in Taitung County. The survey result showed that 7 villages in 3 townships had collected An. minimus adults (Table 19 and Figure 15). Shicao Village in Longqi Dist., Tainan City had the highest density with the record of catching 15 *An. minimus* per trap-night in July.

Table 19 The number of adult mosquitoes of *Anopheles minimus* collected in 2013

County	Township	*An. Minimus*（No.）	Villages（No.）	Villages with *An. minimus*
Taitung County	Changbin	9	3	Ningpu, Zhangyuan, Sanjian
Tainan City	Longqi	47	3	Shicao, Nankeng, Daping
Hualien County	Wanrong	2	1	Hongye
Total	**3 townships**	**58**	**7**	

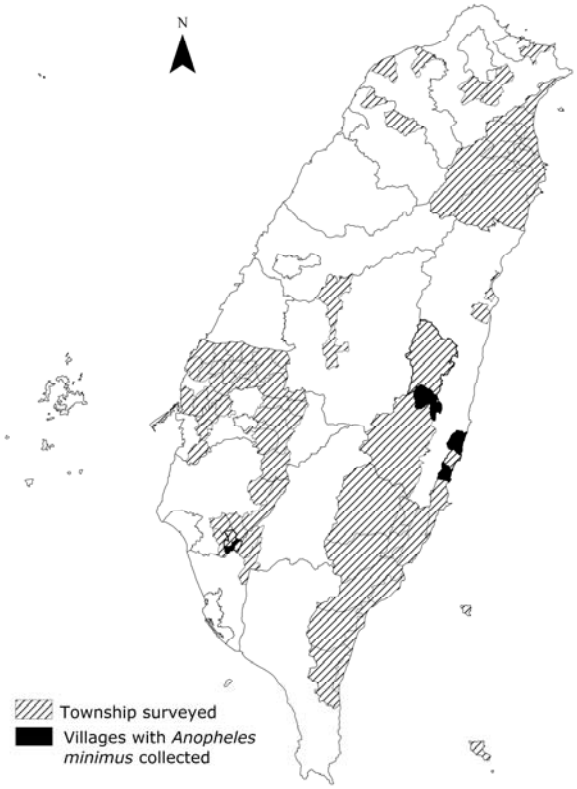


Figure 15　Distribution of Anopheles minimus, 2013

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. Since then, countries around the world have also reported all kinds of subtype high/low pathogenic avian influenza cases. There was large-scale H1N1 pandemic on the global scene in 2009. Subsequently, fatality cases of humans infected with H5N1, H7N9, and Middle East Respiratory Syndrome Coronavirus have also been reported, which attracted worldwide attention and concerns and caused considerable panic worldwide. For the early detection of unusual outbreak or emerging infectious diseases so prompt control measures can be implemented, CDC, adopting the concept of clustering event, established a symptom surveillance system for the reporting of cases with identical symptoms. The surveillance system also helps boost the capacity for monitoring imported diseases and processes symptomatic cases reported by quarantine stations at ports of entry. Currently the symptom surveillance system monitors: H5N1 influenza cases under investigation, influenza-like illness, fever of unknown origin, diarrhea, upper respiratory 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

Health offices and medical institutions (reporting H5N1 influenza cases under investigation only) 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: One case was reported in 2012, which excluded H5N1 infection (influenza B was detected), while a total of 3 cases were reported in 2013, which all excluded H5N1 infection (1 case was tested of A(H1N1), while the other reported cases were all negative).

■ Influenza-like illness (ILI)clustering

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

※Definition of influenza-like illness for reporting purpose: the case should meet simultaneously the following three conditions:

(1) Sudden onset, with fever (ear temperature≧38℃) 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 ILI clusters: In 2013, a total of 26 influenza-like illness cluster events were reported. Clusters that were tested positive include 15 events of A(H3N2), 6 events of A(H1N1), and 2 events of others (including 1 event of mixed infection of type A (H3N2) and A (H1N1) and 1 event enterovirus infection). The rest of reported events were tested negative or had no specimens taken. Populous institutions had the highest incidence of influenza-like illness cluster, followed by schools and hospitals.

Table 20 Test results for influenza-like illness clustering incidents in 2013

Cluster No.	Test results					
	Influenza A (H3N2) viruses	Influenza A (H1N1) viruses	Influenza B viruses	*Others	Negative	No specimen
26	15	6	0	2	3	0

*Others: Others include 1 event of mixed infection of influenza A (H3N2) and A (H1N1) viruses, and 1 event of enterovirus infection.

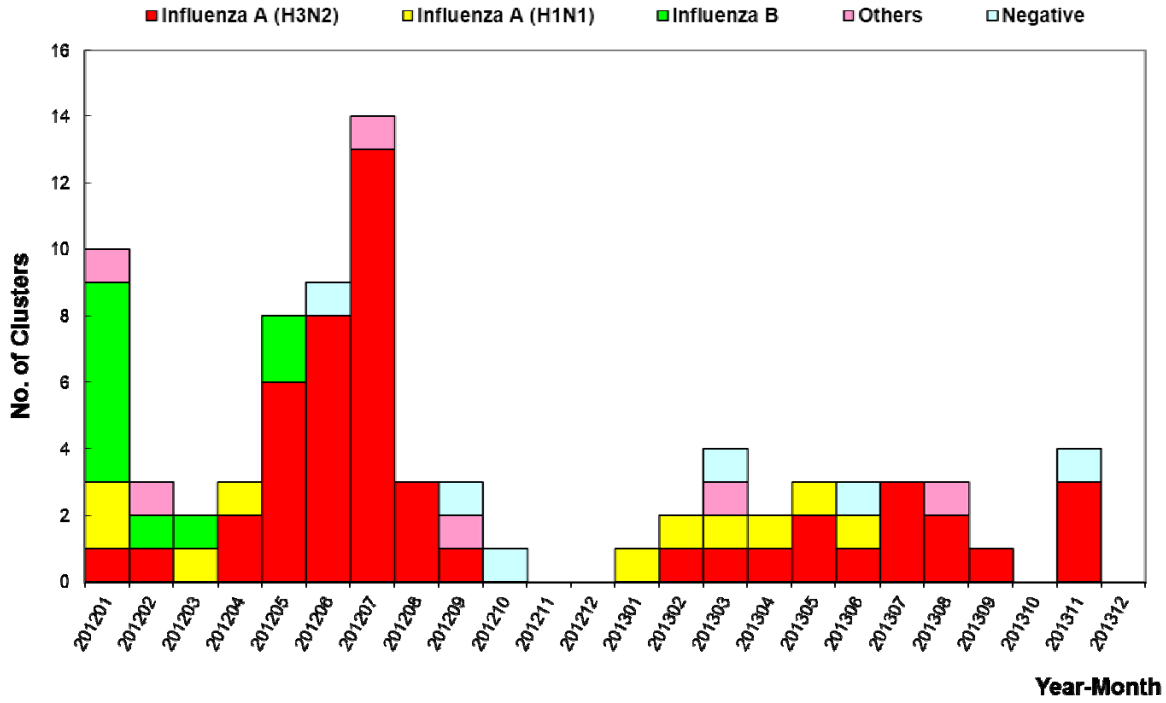


Figure 16 Evolutional trends of influenza-like illness clustering incidents in 2012-2013

Table 21 Distribution of clusters of influenza-like illness cases (by location) in 2013

Institution categories	Cluster No.
populous institutions	12
schools	10
hospitals	4
militaries	0
others	0
total	26

■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 clusters: In 2013, a total of 106 diarrhea cluster events were reported. Clusters that were tested positive include 53 events of Norovirus, 3 events of mixed infection of Norovirus and Rotavirus, 11 events of Rotavirus, and 1 event of other pathogens (Staphylococcus aureus infection). The rest of the reported events were negative or had no specimens taken. Schools had the highest incidence of diarrhea cluster, followed by populous institutions, hospitals, others (including family clusters, business places, family clusters and camps), and military bases.

Table 22 Test results for diarrhea clustering incidents in 2013

Cluster No.	Test results					
	Norovirus	Norovirus and Rotavirus	Rotavirus	*Others	Negative	No specimen
106	53	3	11	1	37	1

*Others: Others include 1 event of *Staphylococcus aureus* infection.

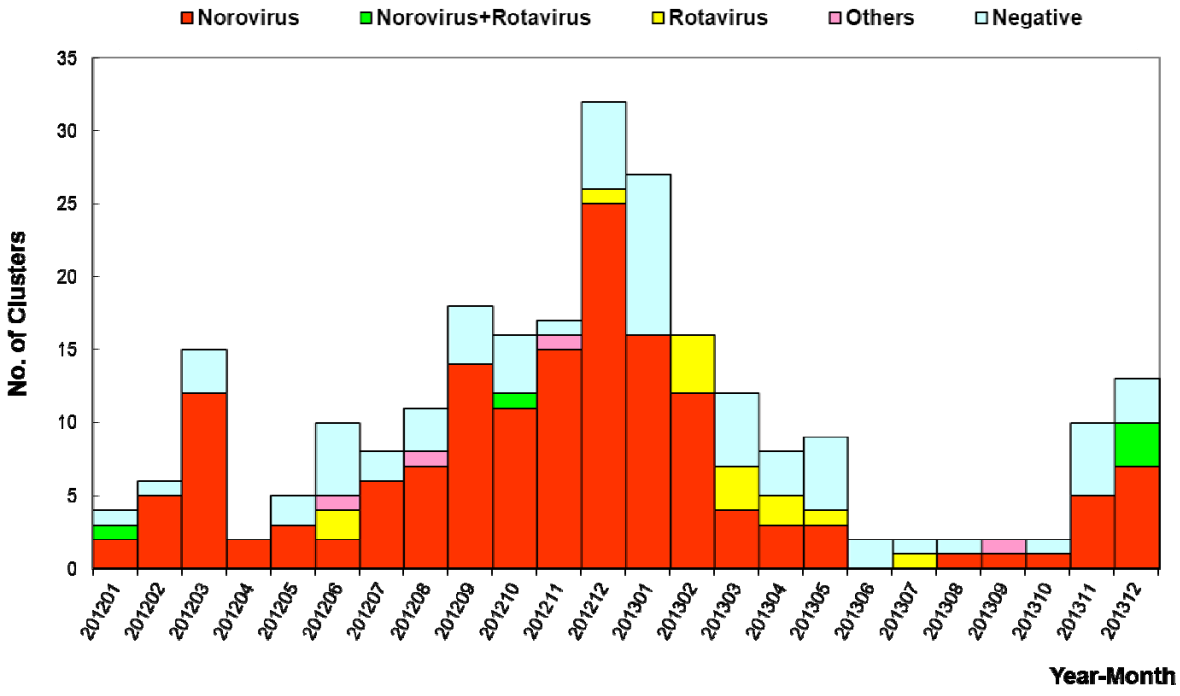


Figure 17 Evolutional trends of diarrhea clustering incidents in 2012-2013

Table 23 Distribution of clusters of diarrhea cases (by location) in 2013

Institution categories	Cluster No.
populous institutions	20
schools	69
hospitals	7
militaries	4
others	6
total	106

■ 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 2013, a total of 118 URI cluster events were reported. Clusters that were tested positive include 34 events of A(H3N2), 30 events of A(H1N1), 1 event of influenza B, and 15 others (including 10 events of respiratory syncytial virus, 3 events of adenovirus, and 2 events of enterovirus). The rest of the reported events were tested negative or had no specimens taken. Schools had the highest incidence of URI cluster, followed by populous institutions, hospitals, others (including camps and postpartum nursing homes), and military bases.

Table 24 Test results for upper respiratory tract infection clustering incidents in 2013

Cluster No.	Test results					
	Influenza A (H3N2) viruses	Influenza A (H1N1) viruses	Influenza B viruses	*Others	Negative	No specimen
118	34	30	1	15	27	11

*Others: Others include 10 event of respiratory syncytial virus (RSV) infection, 3 events of adenovirus infection, and 2 events of enterovirus infection.

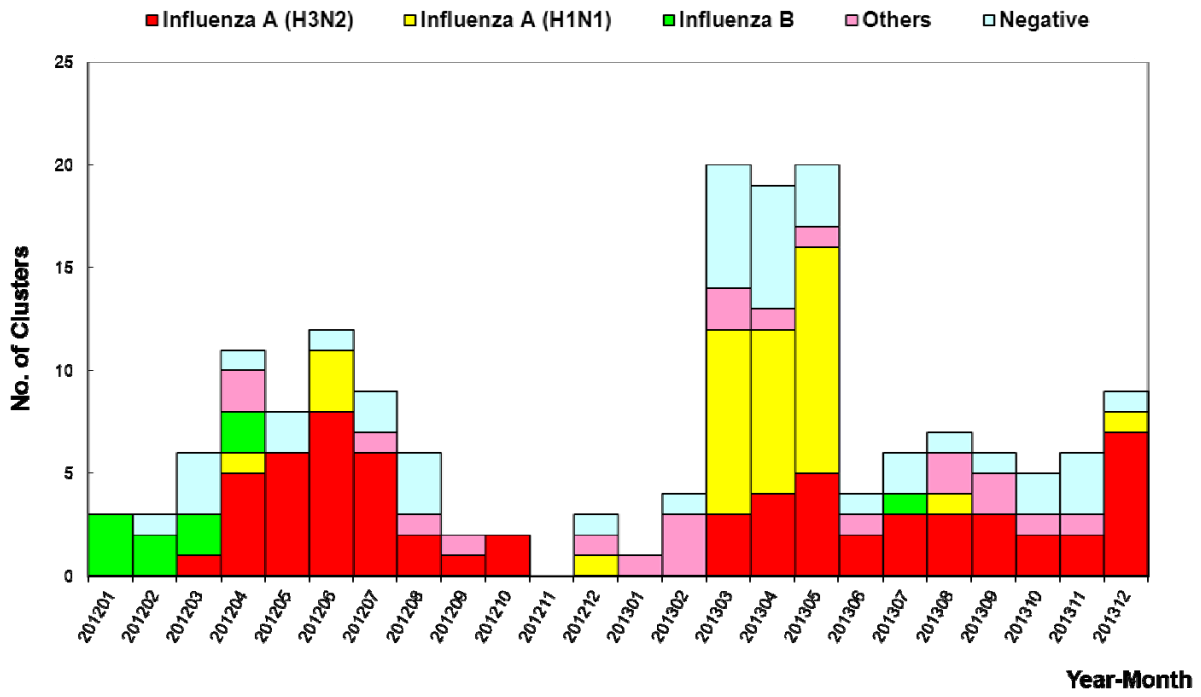


Figure 18 Evolutional trends of upper respiratory tract infection clustering incidents in 2012-2013

Table 25 Distribution of clusters of upper respiratory tract infection cases (by location) in 2013

Institution categories	Cluster No.
populous institutions	37
schools	64
hospitals	12
militaries	2
others	3
total	118

■ **Fever of unknow origin (FUO) clustering**

1. Case definition: Cases with fever symptoms of unknown cause and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.
2. Epidemic analysis of FUO clusters: In 2013, a total of 9 events of fever of unknown origin cluster were reported. Clusters that were tested positive include 3 events of A(H3N2), 3 events of A(H1N1), 1 event of adenovirus, and 1 event of mixed infection of A(H3N2) and Rotavirus. The rest of the reported events were tested negative. Schools had the highest incidence of fever of unknown origin cluster (8 events), followed by populous institutions (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: There were no clusters of patients with coughing lasting more than three weeks reported in 2013.

■ **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: In 2013, a total of 3 enterovirus clusters were reported, including 1 events of Coxsackievirus A2 infection and 1 events of Coxsackievirus A6 infection. The rest 1 event was tested negative. Enterovirus clusters mostly occurred in populous institutions (3 events), as well as at orphanages (2 events) and nurseries in hospitals (1 event).

Real-time Outbreak and Disease Surveillance System

I. Purpose of surveillance

Through the “Real-time Outbreak and Disease Surveillance (RODS)” system, 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 2011 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. Findings

■ Enterovirus

Epidemic analysis:

Enterovirus infections are generally most prevalent between April and October each year in Taiwan. The epidemic condition was more severe in 2013 in comparison with 2012 with a spike in the incidence of enterovirus infection in June and July. Based on the 2013 emergency enterovirus infection surveillance data, the emergency visit rate of enterovirus infections throughout the year ranged from 1.31‰ to 25.45‰, which was higher than 2012 (0.81‰ to 15.37‰). The epidemic condition picked up starting in May and peaked in June and July. Different from the experiences in previous years, the outbreak was noticeable in mid-June and the epidemic slowed down after September with two waves of minor spike in October and November before the end of the year. [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 2013, the emergency room visit rate for influenza-like illness ranged from 7.04% to 19.18%, which showed a downtrend in comparison with the surveillance figures in 2012 (6.73% to 29.00%) and the epidemic was milder than that 2012, except during its peak. Based on the 2013 7-day moving average chart of influenza-like illness visit rate, the emergency room visits rose sharply starting in February and reached a peak in mid-February. That was because hospitals and clinics closed their outpatient services in early February during the Chinese New Year holiday that led to sharp increase in emergency room visits. The emergency room visit rates went back to normal after the Chinese New Year holiday and the epidemic condition slowed down gradually with a minor spike in April and May each before it picked up again after the end of December as another influenza season began. [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 2013, the emergency room visit rate for acute diarrhea ranged from 2.46% to 12.47%. The prevalence in 2013 at its peak was higher than that in 2012 (3.21% to 10.82%), but the epidemic leveled off after peaking in early January and showed two minor spikes in April and October respectively. Diarrhea epidemic typically reaches the peak of prevalence before and after the Chinese New Year. Based on the 7-day moving average chart of acute diarrhea visit rate, emergency room visits due to acute diarrhea rose gradually starting December 2012, peaked in early January and then leveled off thereafter before it reached another peak during the Chinese New Year holiday when most hospitals and clinics closed their outpatient service. The emergency room visit rate declined gradually afterwards, but showed another peak in October, leveled off thereafter and then rose again in December. [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 2013, the emergency room visit rate for conjunctivitis ranged from 0.72‰ to 7.11‰, which was higher than that in 2012 (0.70‰ to 5.81‰). Based on the 7-day moving average chart of conjunctivitis visit rate, the emergency room visits showed a brief peak in late January during the Chinese New Year holiday when most hospitals and clinics closed their outpatient service and then leveled off afterwards. In 2012, the conjunctivitis epidemic maintained a leveled and steady state after peaking early in the year. Similar to previous year, 2013 showed other peaks during the year, but the emergency room visit rate in September was higher in comparison with the same month in previous years. [Note: permillage of AHC visits = (person-time of emergency room AHC cases / total person-time of emergency room cases)* 1000‰]

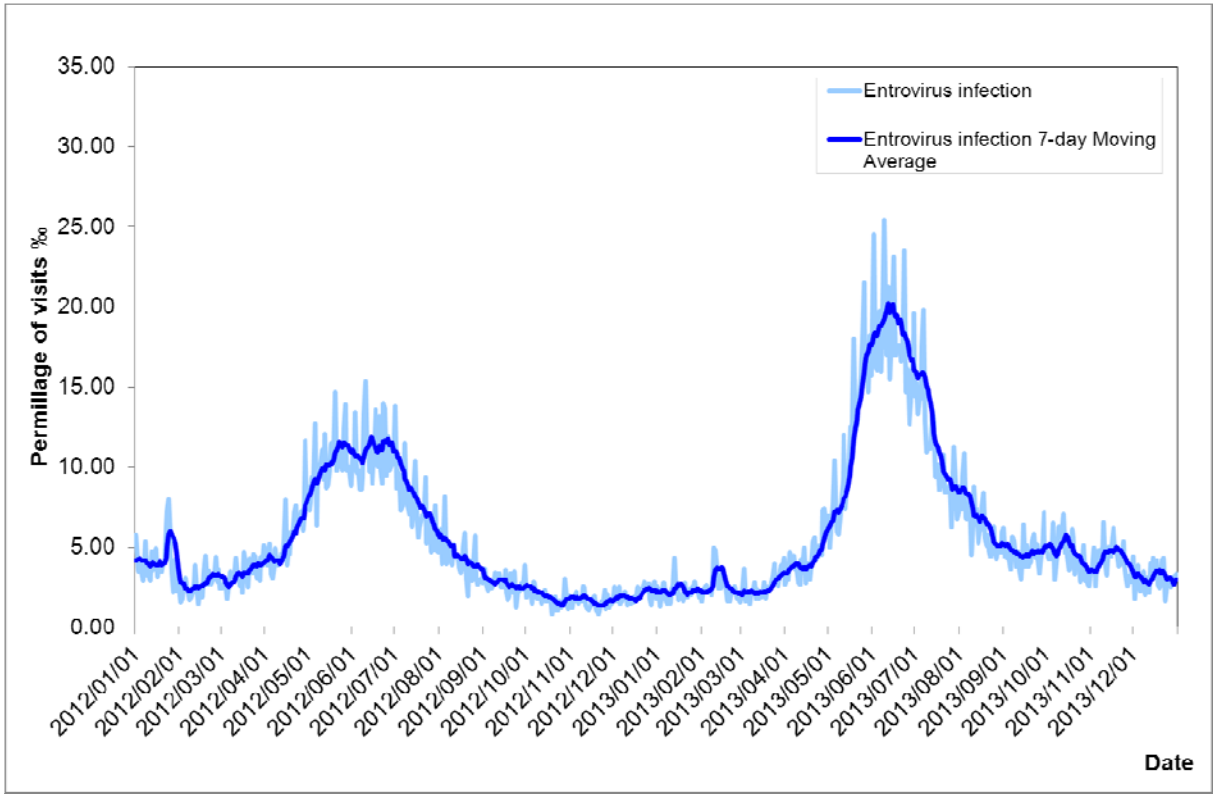


Figure 19 Daily Permillage of Emergency Department of Enterovirus Visits & 7-day Moving Average

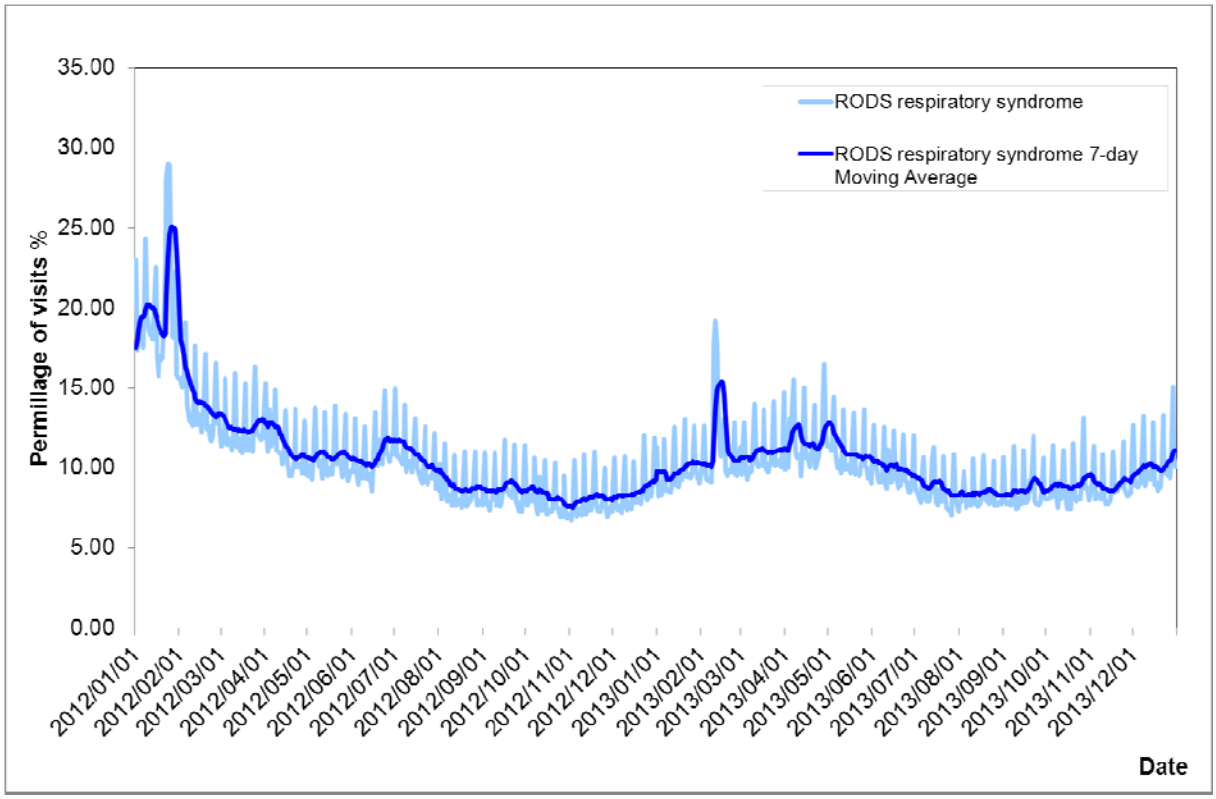


Figure 20 Daily Percentage of Emergency Department of Respiratory Visits & 7-day Moving Average

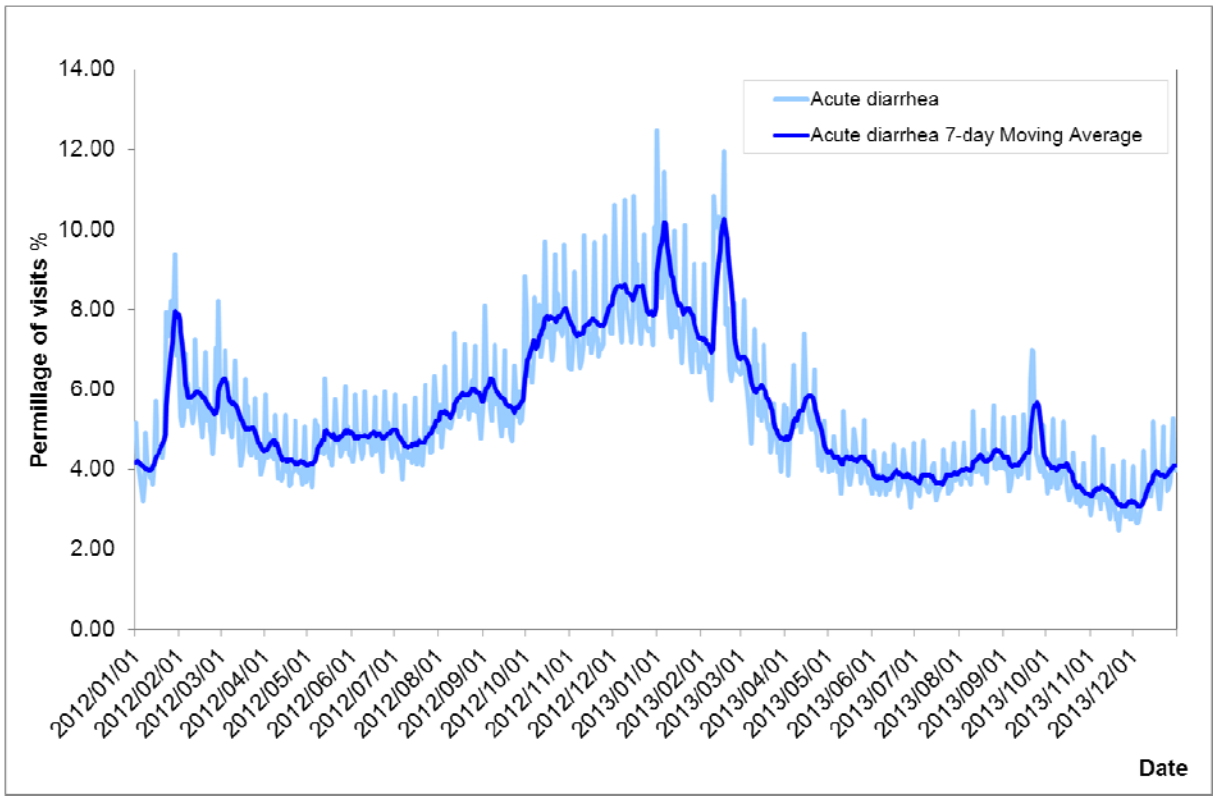


Fig 21 Daily Percentage of Emergency Department of Acute Diarrhea Visits& 7-day Moving Average

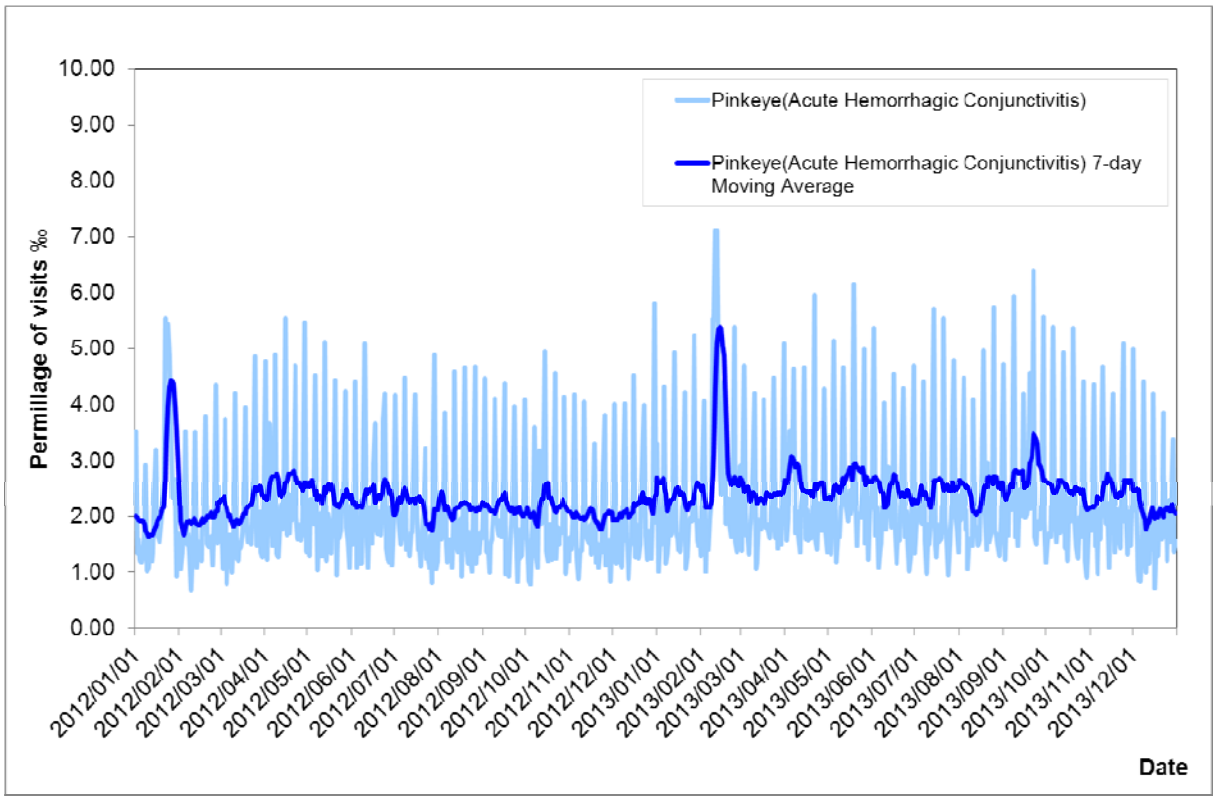


Fig 22 Daily Permillage of Emergency Department of Acute Hemorrhagic Conjunctivitis Visits & 7-day Moving Average

Disease Surveillance using National Health Insurance Data

I. Introduction

To boost Taiwan's surveillance capacity for specific diseases, Taiwan CDC and the Bureau of National Health Insurance (BNHI) embark on horizontal cooperation, under which, the BNHI 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 BNHI 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 (RODS)" system, 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 secondaray data as admission date, hospital locations, age groups, codes of outpatient/inpatient/emergency department and so on. Due to the bigger fluctuation seen in weekly 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)

In 2013, between 2,000 and 17,000 person-times visited the hospitals for influenza-like illness on an outpatient basis every day, which was slightly lower in comparison with the number of outpatient visits (ranging between 1,700 and 27,000 person-times a day) in 2012. Observing the trends in epidemic prevalence based on the 7-day moving average curve of outpatient visits due to influenza-like illness, the overall epidemic condition of influenza-like illness had a peak in early February. But the outpatient visits dropped sharply in mid-February during the Chinese New Year holiday during which hospitals and clinics were closed. The outpatient visits peaked again after the Chinese New Year holiday, but the epidemic condition tapered off gradually. In comparison with 2012, the influenza epidemic in January 2013 was milder with the epidemic condition tapering off after the Chinese New Year holiday and the number of outpatient visits was also less than that in 2012. The flu epidemic was actually mild all year round in 2013 that gradually picked up after the end of November.

■ Enterovirus infections

In 2013, between 200 and 7,600 person-times visited the hospitals for enterovirus infection on an outpatient basis every day, which increased significantly in comparison with the number of outpatient visits in 2012 (ranging between 100 and 5,100 person-times a day). Observing the trends in epidemic prevalence based on the 7-day moving average curve of outpatient visits due to enterovirus infection, it is found the epidemic condition in 2013 was more severe than 2012 while showing a similar trend as the incidence of enterovirus infection picked up quickly in May, persisted until mid-July and then dropped off suddenly afterwards. In 2012, the epidemic condition reached its low in October and November after an apparent peak. In comparison, there were two uptrends in October and November respectively in 2013 after the epidemic condition tapered off earlier in the year.

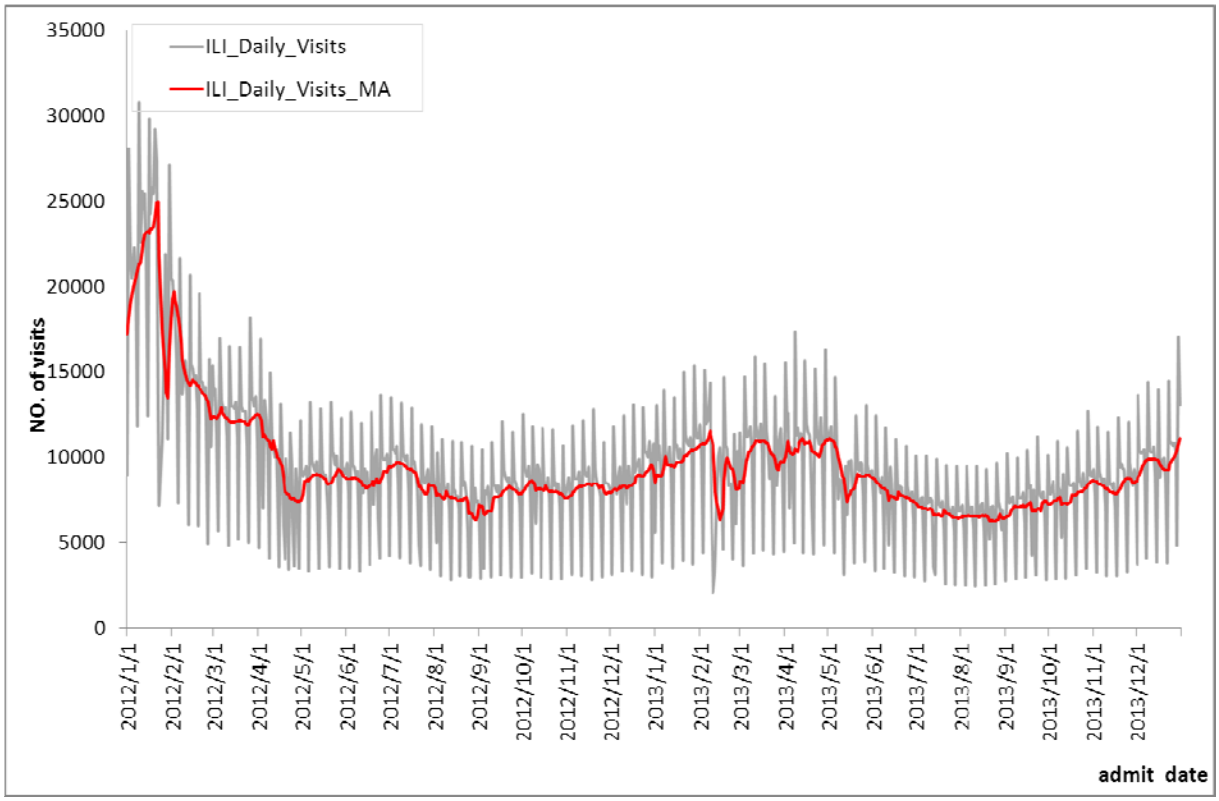


Figure 23 Daily influenza-like illness visits and the 7-day moving average trend, 2012-2013

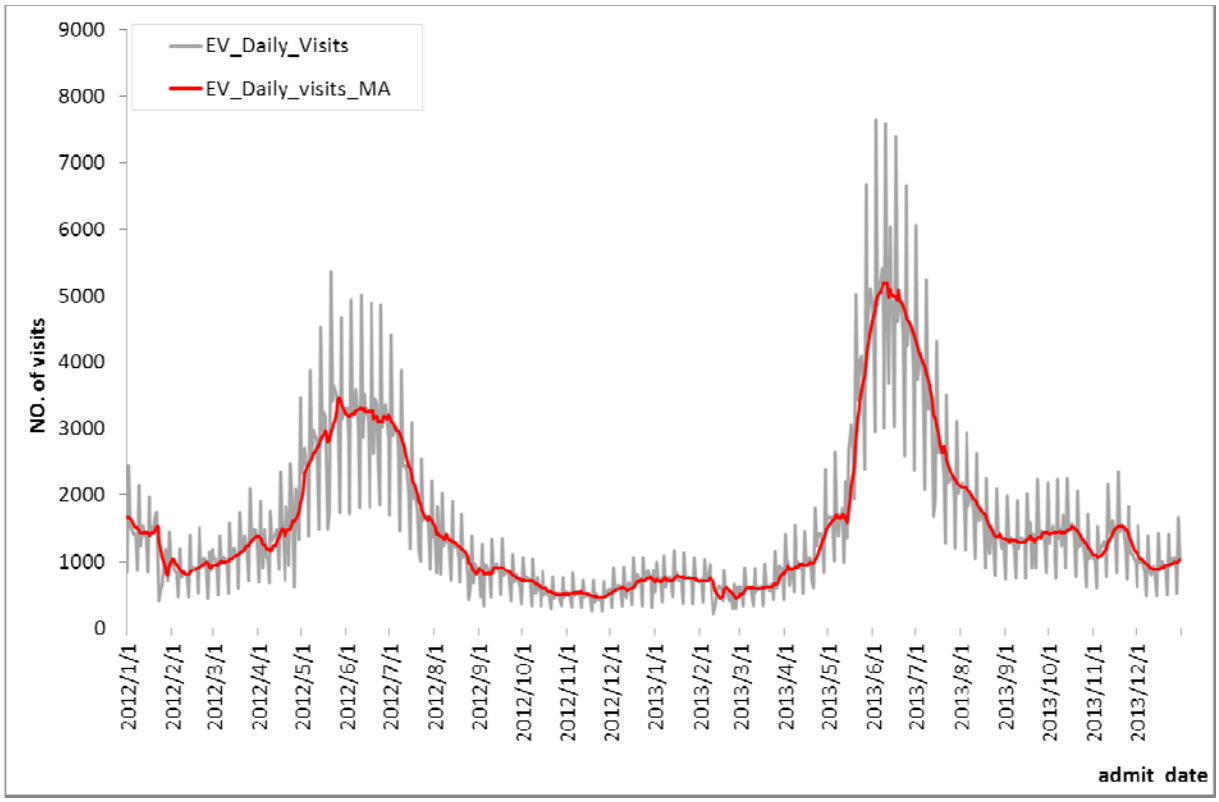


Figure 24 Daily enterovirus visits and the 7-day moving average trend, 2012-2013

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 U.S. for example includes viral surveillance, outpatient illness surveillance, mortality surveillance, hospitalization surveillance and geographic distribution of influenza virus. The mortality surveillance consists of two parts. One is the 122 Cities Mortality Reporting System, which provides weekly reports of the total number of deaths certificates that list pneumonia and influenza (P&I) as a potential cause or cause of death. The other is Influenza-Associated Pediatric Mortality Surveillance System, which Influenza-associated deaths in children (under the age of 18) was added as a nationally notifiable condition. Any laboratory confirmed influenza-associated death in a child is reported through this system.

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 investigation of complicated influenza cases 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

The 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

Based on the P&I mortality surveillance data of CDC, the weekly deaths from P&I ranged between 270 to 360 in 2013, as compared to the weekly deaths between 240 and 440 in 2012. If analyzed by age group, the majority of P&I deaths in 2013 and 2012 occurred in 65 years old and above, accounting for respectively 87.4% and 88.1% of P&I deaths. In observation of the 4-week moving average curve of P&I deaths, it is found that the overall mortality of P&I death in 2013 started to rise at the end of 2012, peaked during weeks 1-15 of the year. In comparison with the trend in 2012, the overall epidemic curve in 2013 showed a gentle slope.

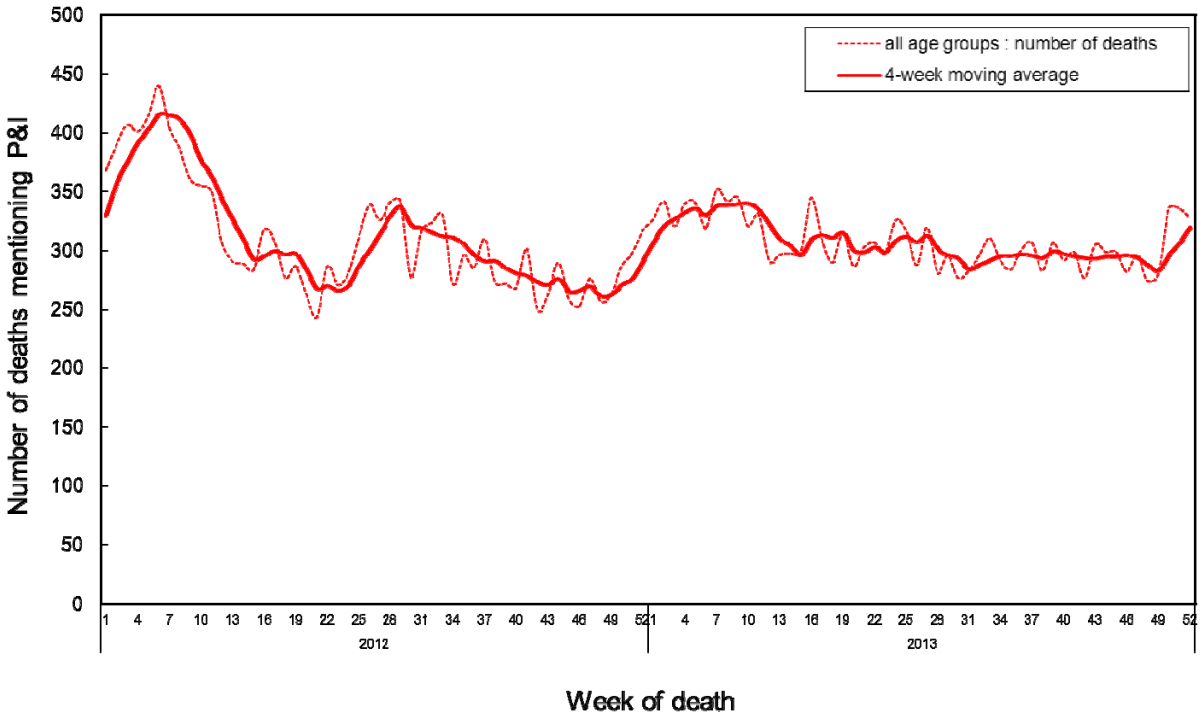


Figure 25 The surveillance trend of pneumonia and influenza mortality

PART III

Surveillance Reports of Selected Diseases

◎ **Abbreviations and Symbols Used in Table**

– No reported cases.

… Not under surveillance.

Measles

In 2013, 8 confirmed cases of measles (incidence rate: 0.03 per 100,000 population) were reported, which went down as compared with 9 confirmed cases (incidence rate: 0.04 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 4 male cases (50.0%) and 4 female cases (50.0%) with male to female ratio of 1.0:1.0.

(2) By age group

There were 4 cases in 25-39 years age group, 3 cases in 0-1 year age group, and 1 case in 40-64 year age group.

(3) By month

There were 2 cases each in January, April, July and August.

(4) By residential region

Taipei City, New Taipei City and Kaohsiung City each had 2 cases reported, and Taoyuan County and Taichung City each had 1 case reported, while the other cities and counties had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taipei City and Kaohsiung City (both at 0.07), followed by New Taipei City and Taoyuan County (both at 0.05).

(5) Imported cases and countries of infection

There were 6 imported cases of measles in 2013, including 5 cases from China and 1 case from South Korea.

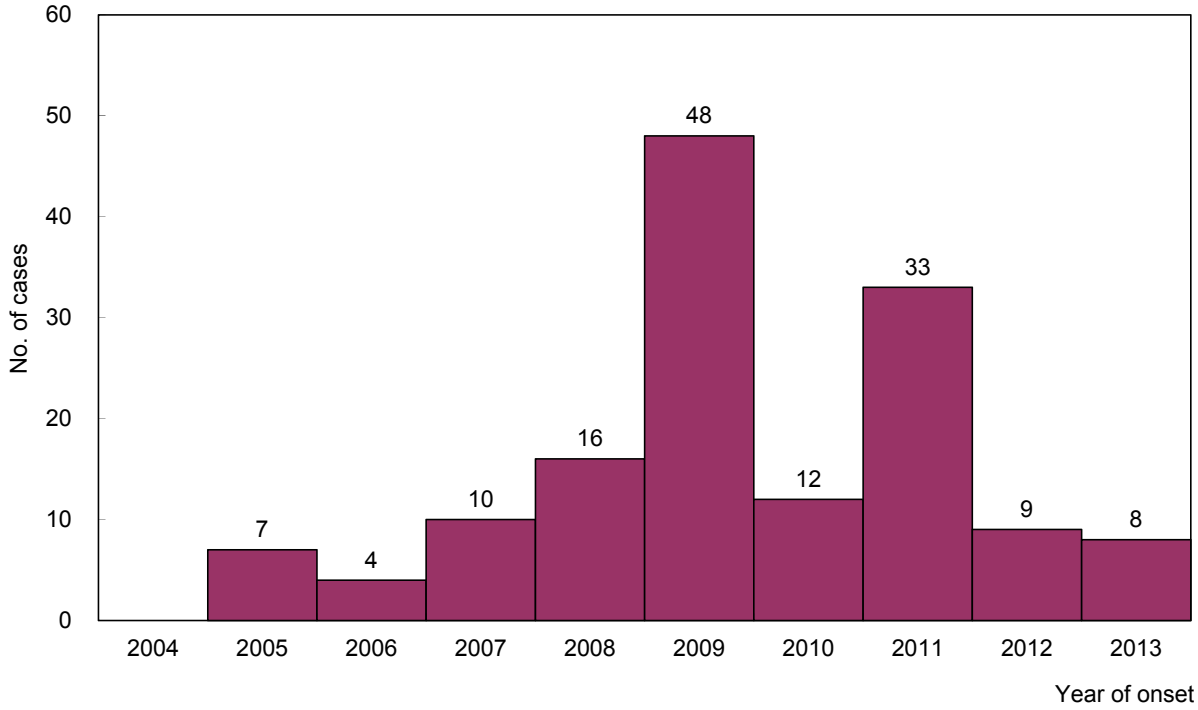


Figure 26 Number of confirmed Measles cases, 2004-2013

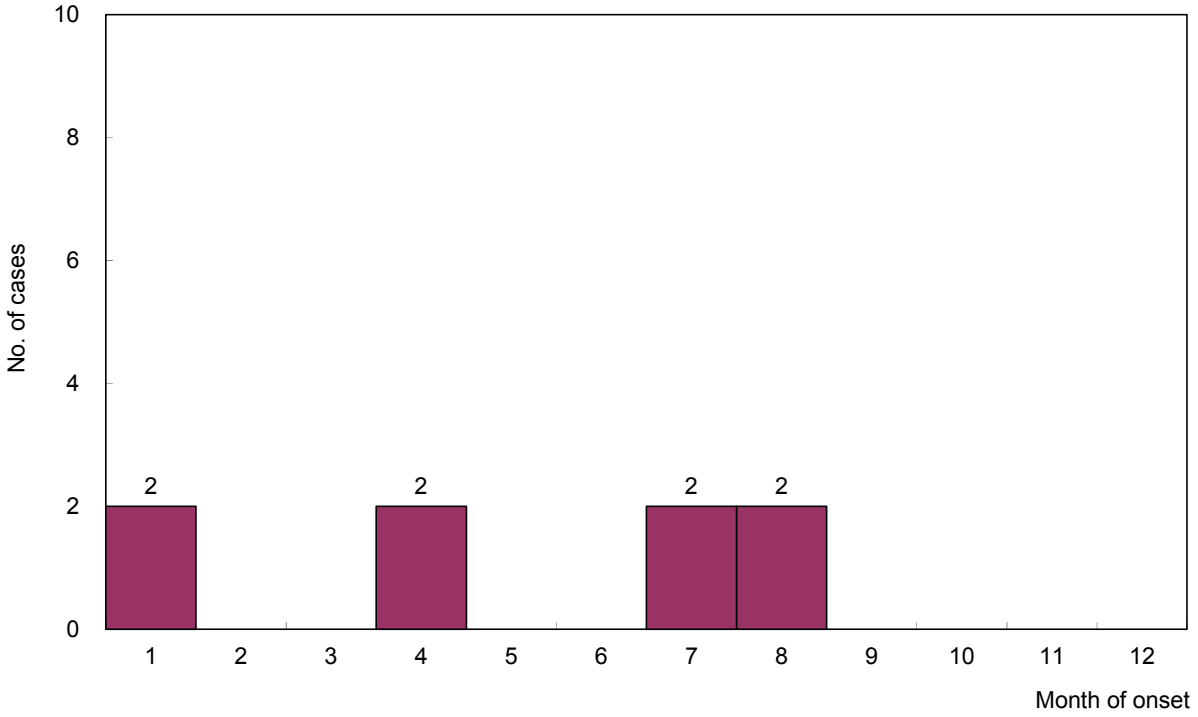


Figure 27 Number of confirmed Measles cases, 2013

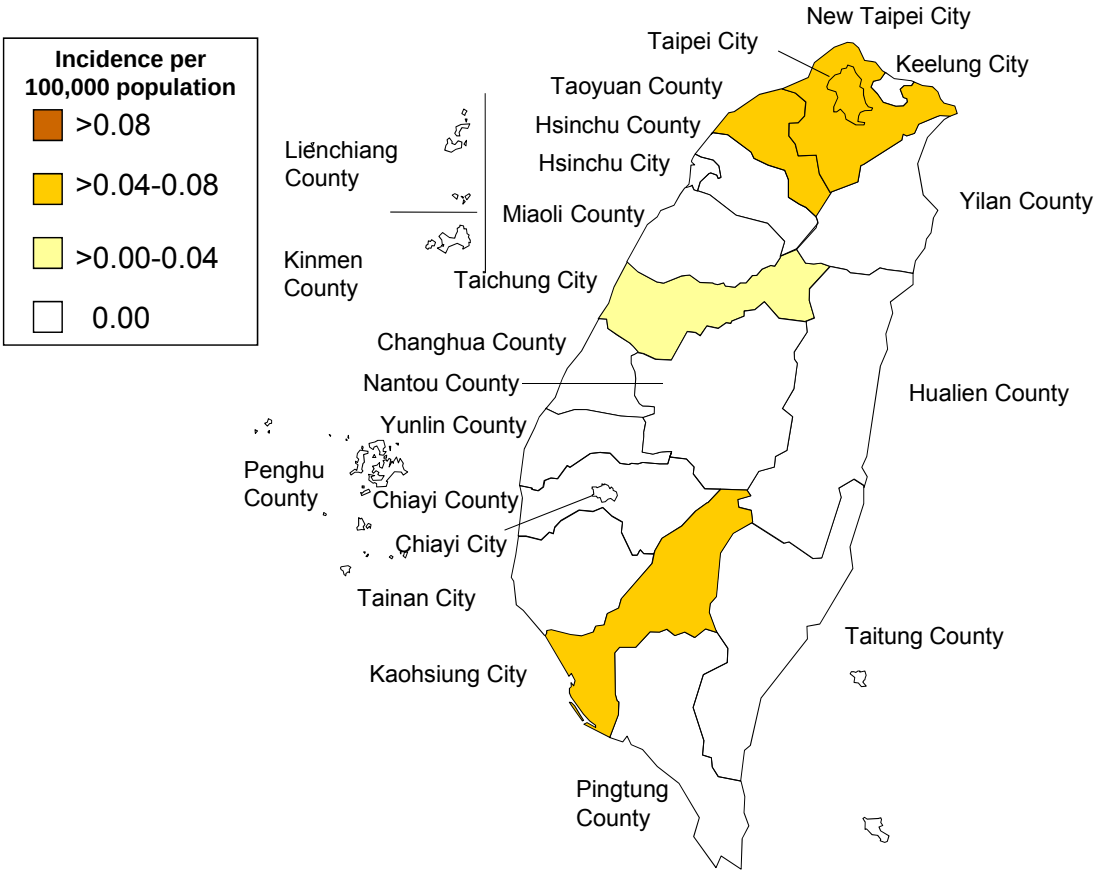


Figure 28 Geographical distribution by incidence of confirmed Measles cases, 2013

Pertussis

In 2013, 51 confirmed cases of pertussis (incidence rate: 0.22 per 100,000 population) were reported, which edged down as compared with 54 confirmed cases (incidence rate: 0.23 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 27 male cases (52.9%) and 24 female cases (47.1%) with male to female ratio of 1.1:1.0.

(2) By age group

There were 30 cases in 0-1 year age group, 12 cases in 5-14 years age group, 5 cases in 25-39 years age group, 2 cases in 1-4 years age group, and 1 case each in 15-24 years and 40-64 years age group.

Of the 30 cases in 0-1 year age group, 11 cases were 2 months old, 6 cases were 1 month old, 5 cases were 3 months old, 2 cases each were less than one month old, 5 months old and 6 months old, and 1 case each was 4 months old and 8 months old.

(3) By month

There were confirmed cases in every month of the year except September and October. Among them, 10 cases in June, 9 cases in January, 7 cases each in February and December, 6 cases in March, 4 cases each in April and November, 2 cases in July, and 1 case each in May and August.

(4) By residential region

Taoyuan County had the highest number of incidents (15 cases), followed by New Taipei City with 11 cases, Taipei City with 8 cases, Taichung City with 6 cases, Kaohsiung City with 3 cases, Hualien County with 2 cases, and Keelung City, Yilan County, Hsinchu City, Miaoli County, Yunlin County and Taitung County with 1 case each. The other cities and counties had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taoyuan County (0.74), followed by Hualien County (0.60), and Taitung County (0.44).

(5) Imported cases and countries of infection.

There were no imported cases of pertussis in 2013.

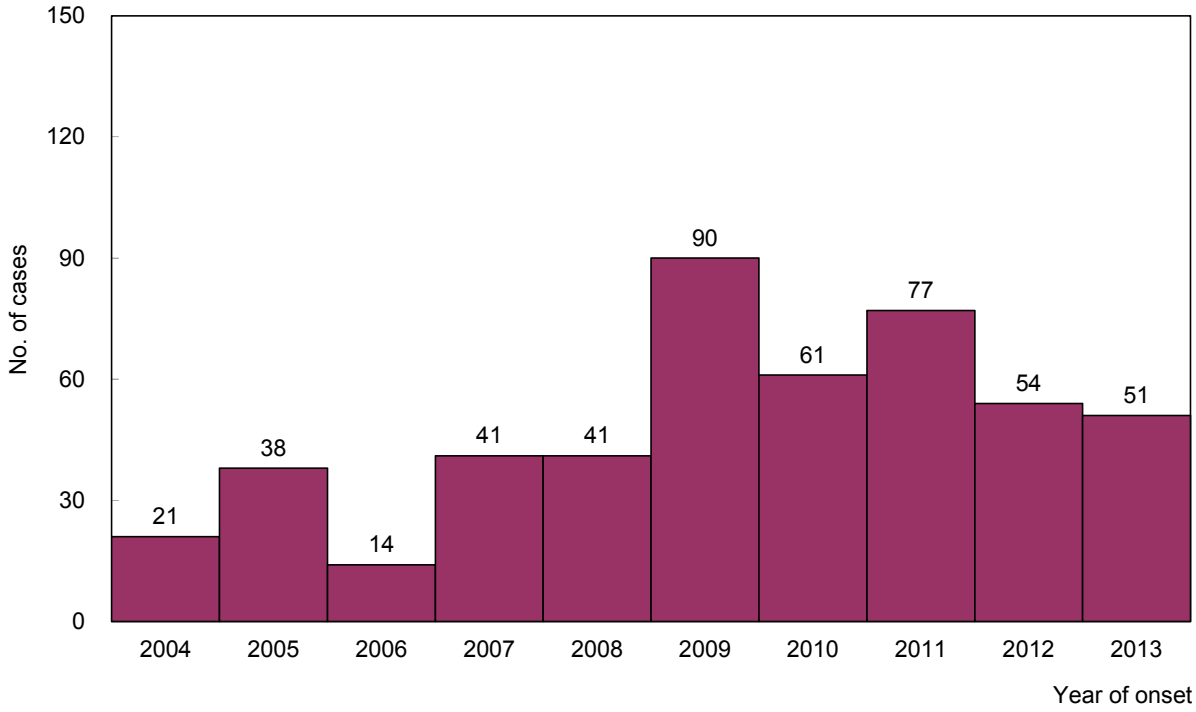


Figure 29 Number of confirmed Pertussis cases, 2004-2013

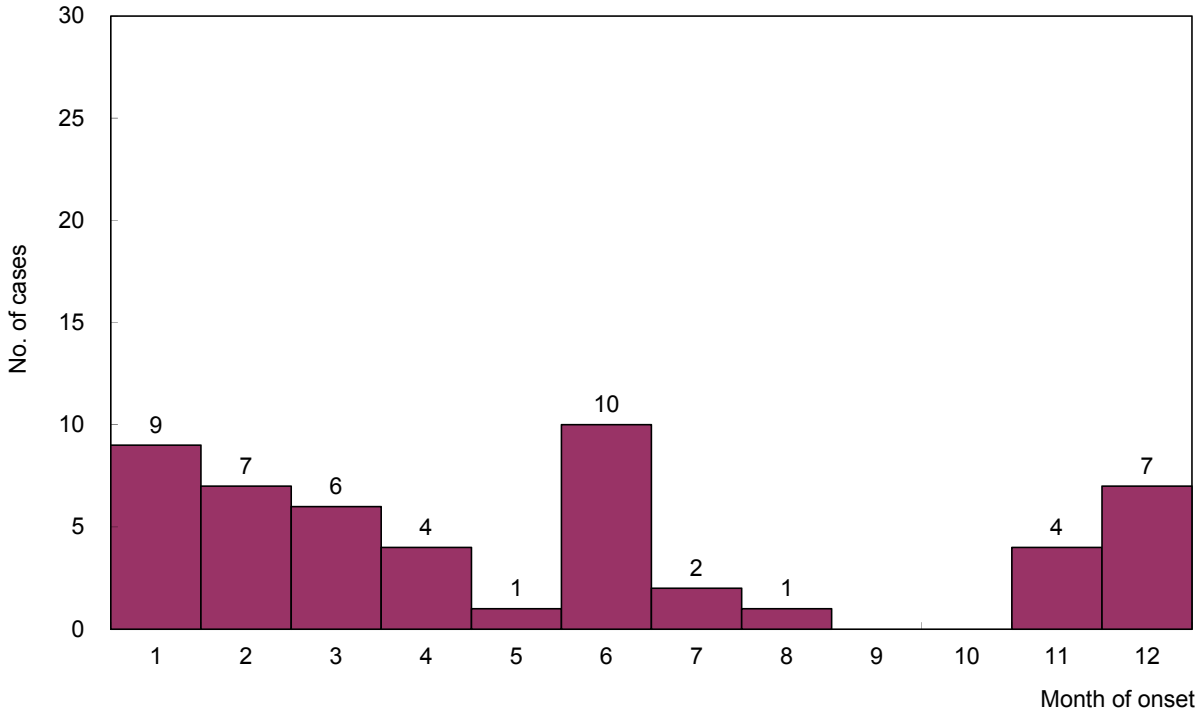


Figure 30 Number of confirmed Pertussis cases, 2013

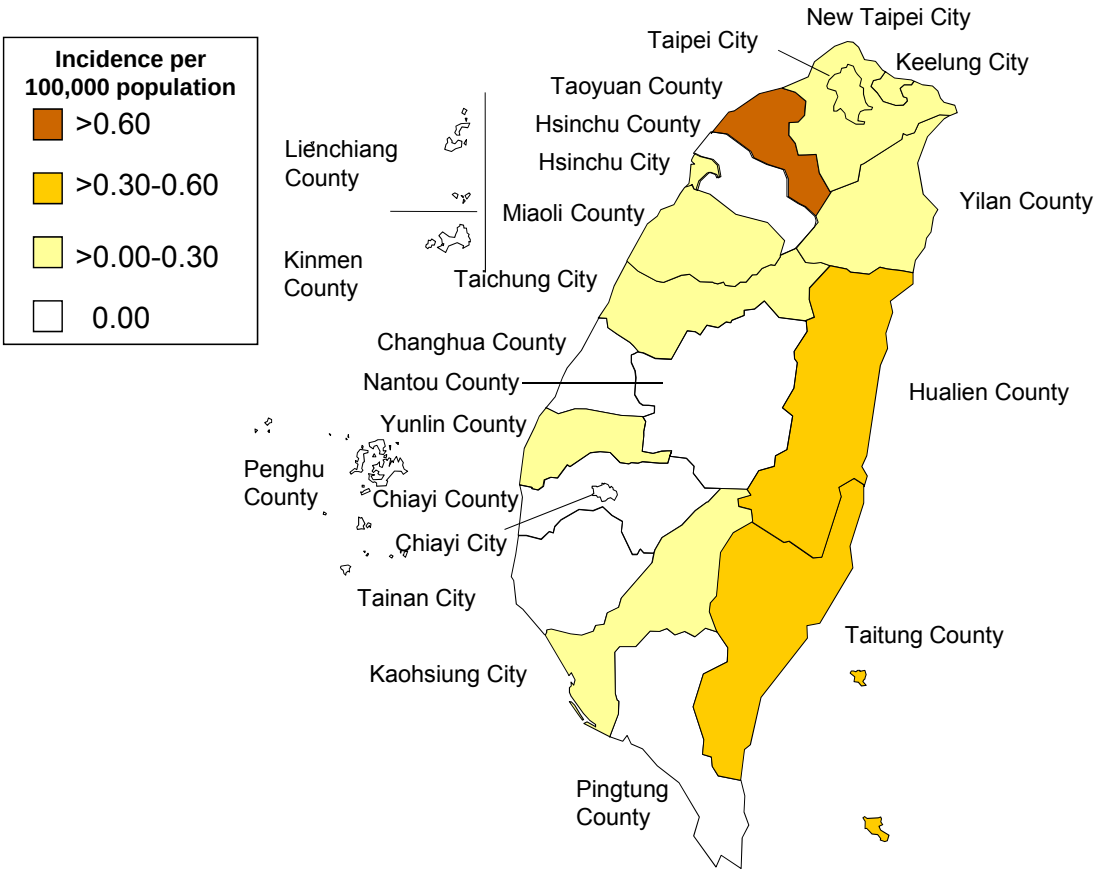


Figure 31 Geographical distribution by incidence of confirmed Pertussis cases, 2013

Meningococcal Meningitis

In 2013, 6 confirmed cases of meningococcal meningitis (incidence rate: 0.03 per 100,000 population) were reported, which stayed the same as compared with 6 confirmed cases (incidence rate: 0.03 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 5 male cases (83.3%) and 1 female case (16.7%) with male to female ratio of 5.0:1.0.

(2) By age group

There were 2 cases each in 0-1 and 1-4 years age groups and 1 case each in 15-24 and 40-64 years age groups.

(3) By month

There were 3 confirmed cases in November, 2 cases in February and 1 case in December.

(4) By residential Region

Confirmed cases were reported in 6 cities and counties. Yilan County, Taoyuan County, Taichung City, Tainan City, Hualien County and Taitung County had 1 case each, whereas no confirmed cases were reported in other cities and counties.

The incidence rate of confirmed cases per 100,000 population was the highest in Taitung County (0.44), followed by Hualien County (0.30), and Yilan County (0.22).

(5) Imported cases and countries of infection

There were no imported cases of meningococcal meningitis in 2013.

(6) By serogroup

After identified by laboratory testing, 3 cases were found to be infected with *Neisseria meningitides* serogroup B, and 2 cases was infected with serogroup C. However, 1 case could not be subtyped.

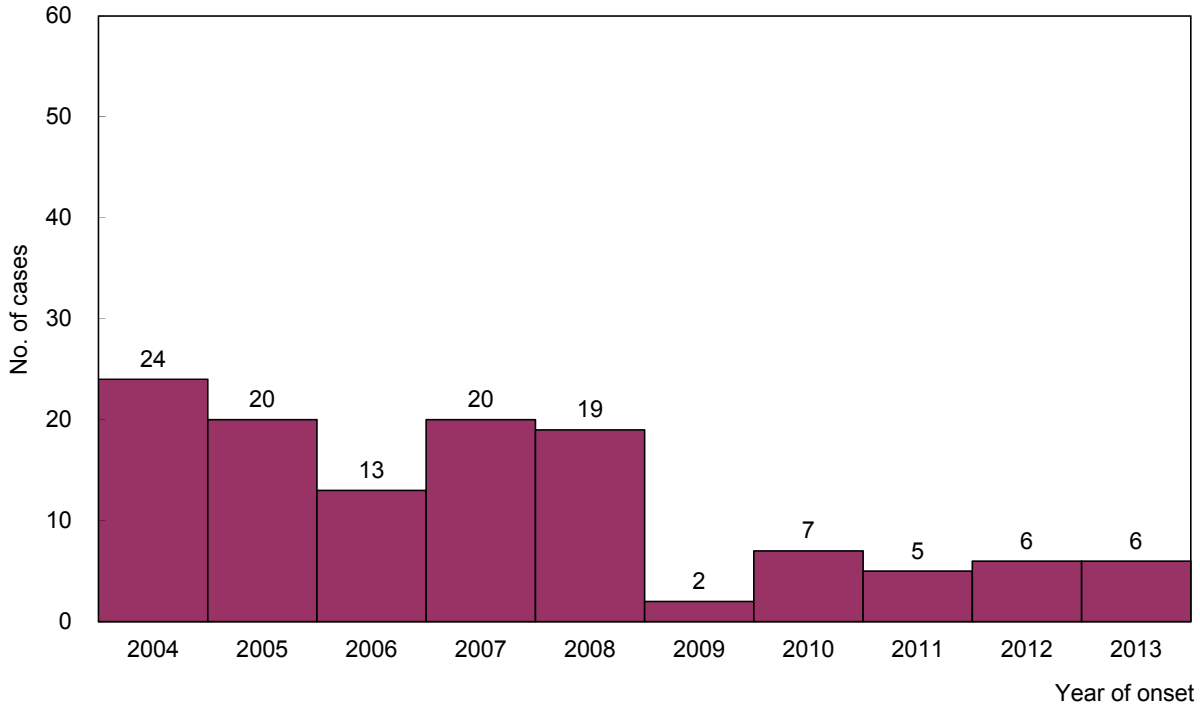


Figure 32 Number of confirmed Meningococcal Meningitis cases, 2004-2013

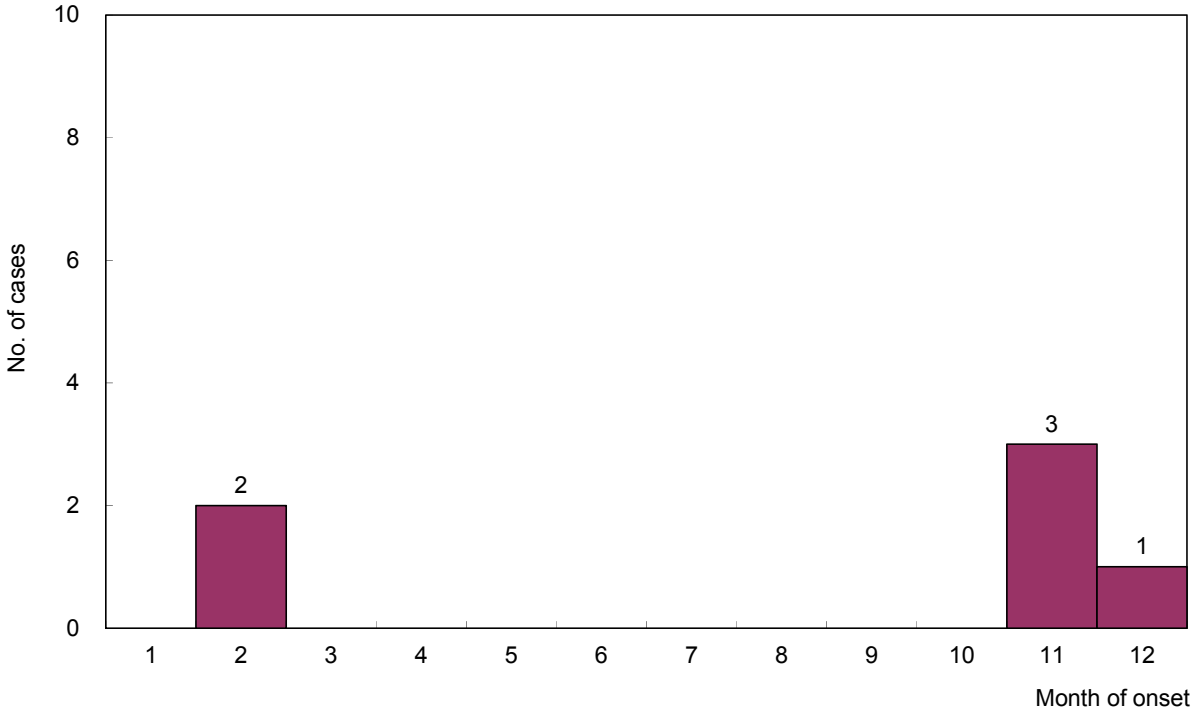


Figure 33 Number of confirmed Meningococcal Meningitis cases, 2013

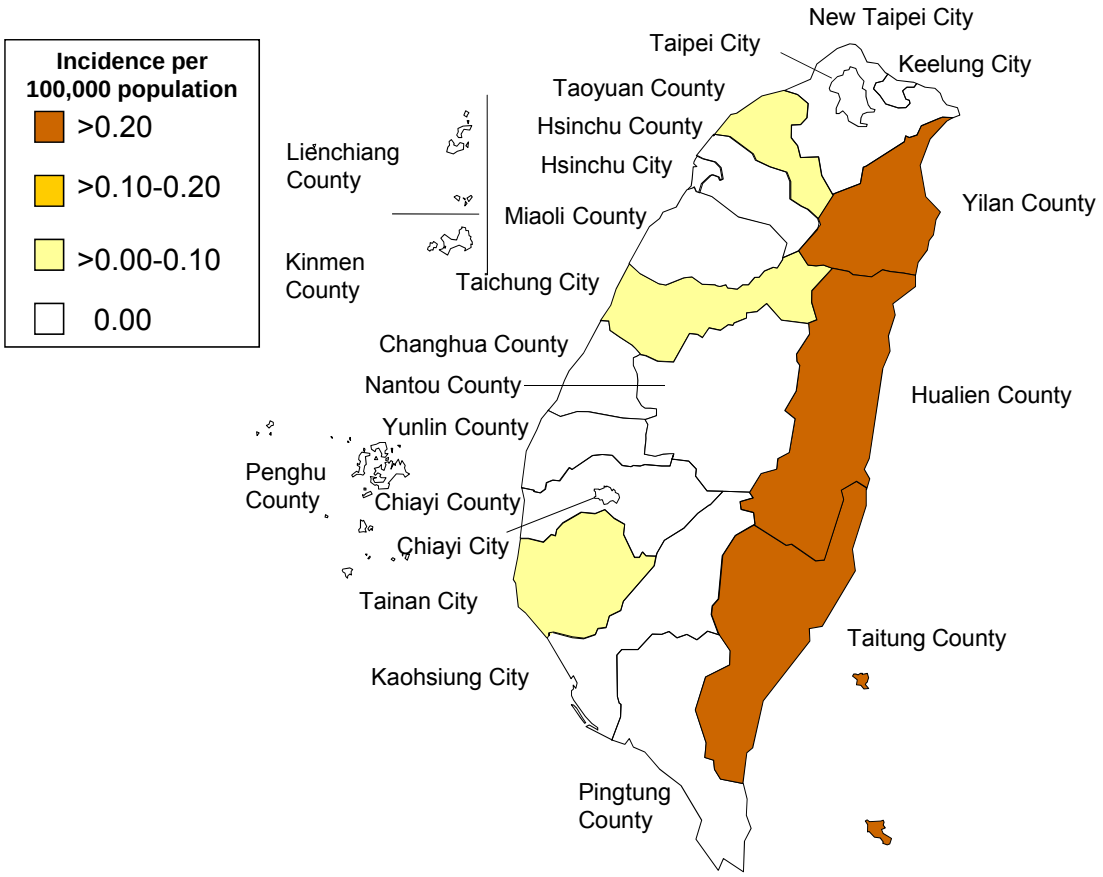


Figure 34 Geographical distribution by incidence of confirmed Meningococcal Meningitis cases, 2013

Japanese Encephalitis

In 2013, 16 confirmed cases of Japanese encephalitis (incidence rate: 0.07 per 100,000 population) were reported, which declined as compared with 32 confirmed cases (incidence rate: 0.14 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 12 male cases (75.0%) and 4 female cases (25.0%) with male to female ratio of 3.0:1.0.

(2) By age group

By age group, there were 9 cases in 40-64 years age group, 5 cases in 25-39 years age group, 1 case each in 15-24 years and 65 years and over age groups.

(3) By month

The cases occurred during May through July, with 11 cases in June, 3 cases in July, and 2 cases in May.

(4) By residential Region

Tainan City and Kaohsiung City had the highest number of incidents each with 3 confirmed cases reported, followed by Taoyuan County and Taichung City with 2 cases each, New Taipei City, Taipei City, Hsinchu County, Changhua County, Yunlin County and Pingtung County with 1 case each, whereas no confirmed cases were reported in the other cities and counties.

The incidence rate of confirmed cases per 100,000 population was the highest in Hsinchu County (0.19), followed by Tainan City (0.16), and Yunlin County (0.14).

(5) Imported cases and countries of infection

There were no imported cases of Japanese encephalitis in 2013

(6) By clinical symptoms

Among the confirmed cases, 15 cases had fever, 11 cases had disorder of consciousness or psychological symptoms (delirium, unconsciousness, etc.), 8 cases had headache, and 3 cases each had nausea or vomiting, muscle cramps or stiff neck.

(7) Residential conditions or neighboring environment

Among the confirmed cases, 10 cases lived nearby pigpens, 9 cases lived nearby paddy field, 5 cases lived nearby pigeonries, and 3 cases each lived nearby duck, chicken or goose farm, or ponds, or had pets at home.

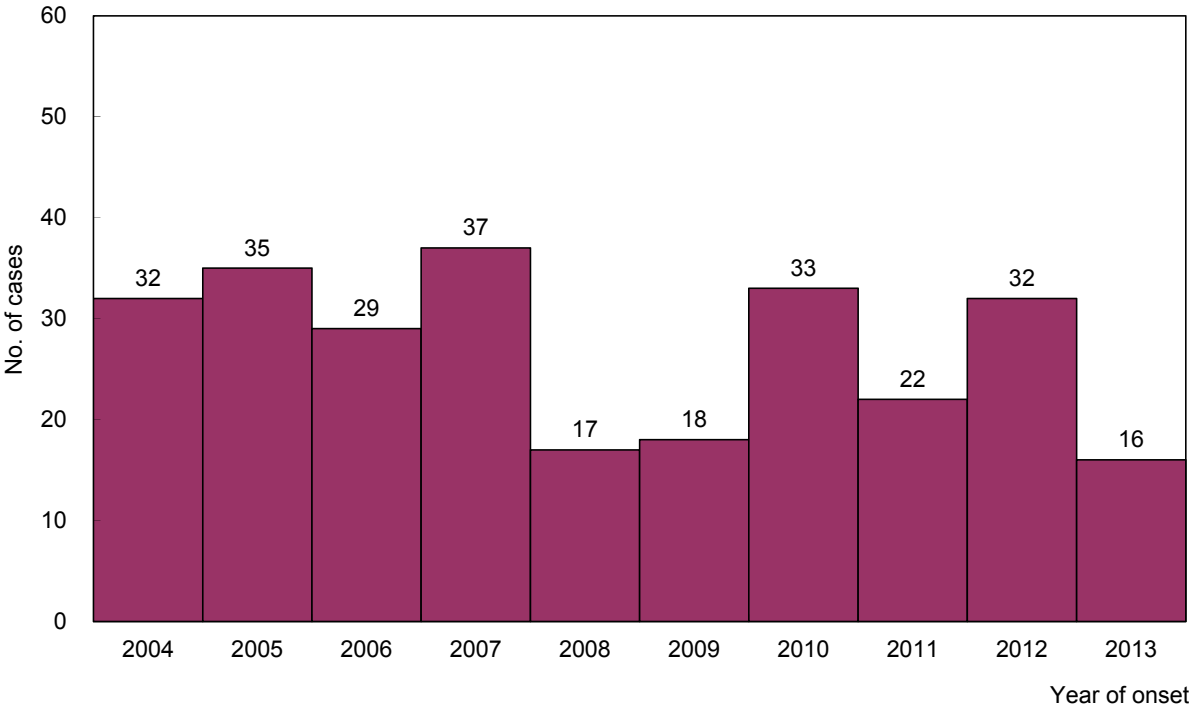


Figure 35 Number of confirmed Japanese Encephalitis cases, 2004-2013

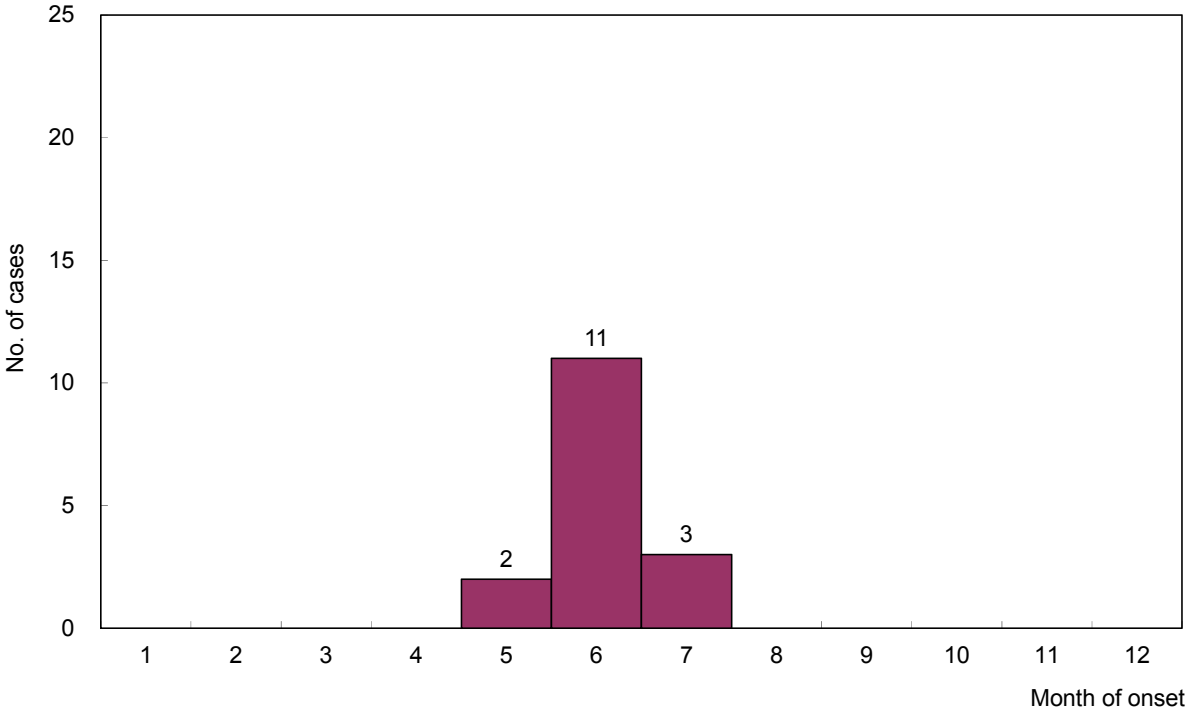


Figure 36 Number of confirmed Japanese Encephalitis cases, 2013

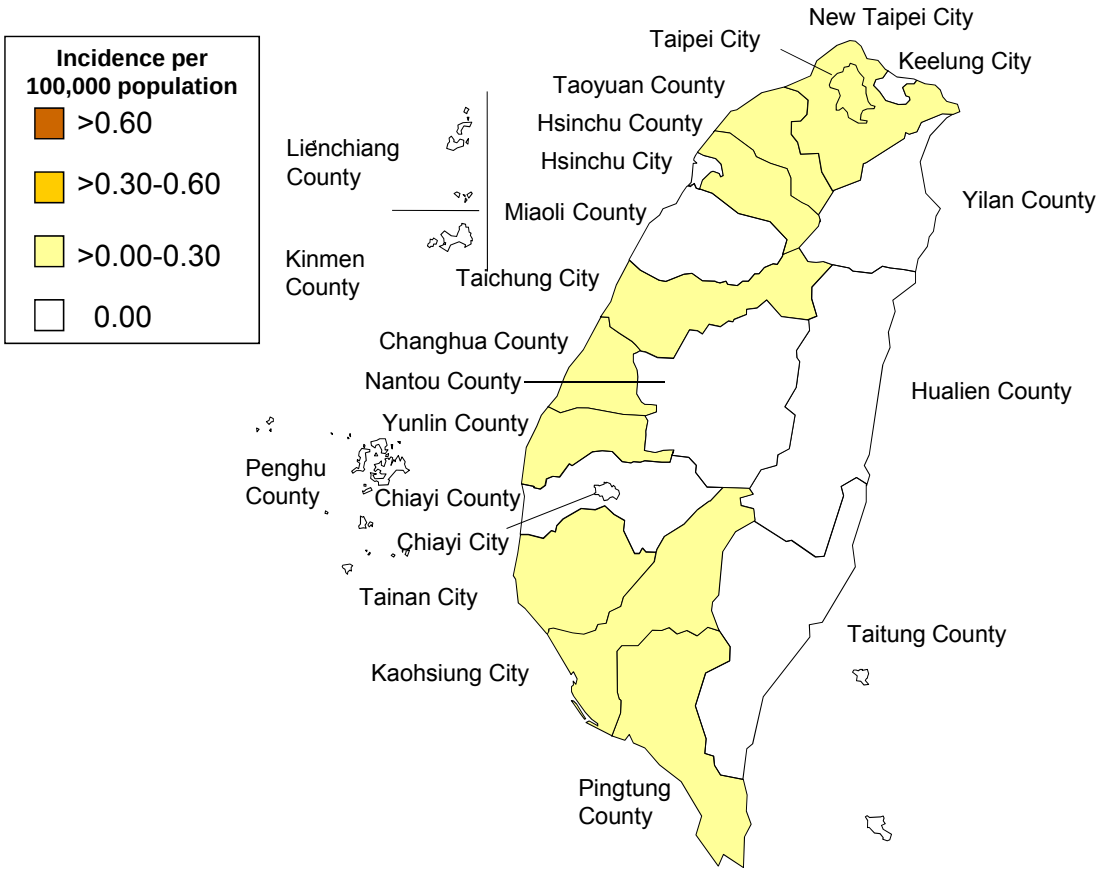


Figure 37 Geographical distribution by incidence of confirmed Japanese Encephalitis cases, 2013

Acute Hepatitis A

In 2013, 139 confirmed cases of acute hepatitis A (incidence rate: 0.60 per 100,000 population) were reported, which increased as compared with 99 confirmed cases (incidence rate: 0.43 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 85 male cases (61.2%) and 54 female cases (38.8%) with male to female ratio of 1.6:1.0.

(2) By age group

There were 66 cases in 25-39 years age group, 36 cases in 40-64 years age group, 24 cases in 15-24 years age group, 8 cases in 65 years and over age group, and 5 cases in 5-14 years age group

(3) By month

Acute hepatitis A cases were reported in every month of the year. May had the highest number of confirmed cases with 24 cases reported, followed by 20 cases in August, 18 cases in March, 16 cases in April, 13 cases in December, 10 cases each in January and June, 7 cases in February, 6 cases each in July and September, 5 cases in October, and 4 cases in November.

(4) By residential region

New Taipei City had the highest number of incidents with 28 cases reported, followed by Taipei City with 18 cases, Taoyuan County with 16 cases, Kaohsiung City with 15 cases, Taichung City with 14 cases, Hsinchu County with 8 cases, Yunlin County and Tainan City each with 7 cases, and Keelung City and Miaoli County each with 5 cases. The other cities and counties all had less than 5 cases, in which Chiayi City, Penghu County, Hualien County, Taitung County, and Lienchiang County had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Hsinchu County (1.52), followed by Keelung City (1.33), and Yunlin County (0.99).

(5) Imported cases and countries of infection

There were 40 imported cases of acute hepatitis A in 2013, including 10 cases from China, 7 cases from Indonesia, 4 cases each from Philippines and Cambodia, 2 cases each from Malaysia, South Korea and Canada, and 1 case each from Thailand, Vietnam, Myanmar, Laos, Palau Islands, Egypt, Burkina Faso, Ghana, and North Korea.

(6) Clinical symptoms

An epidemiological survey of 139 confirmed cases showed that in cases with symptoms (multiple answers are allowed), 71.2% (99 person-times) had tiredness, 69.1% (96 person-times) had fever, 59.7% (83 person-times) had tawny urine, 56.8% (79 person-times) had stomach discomfort, 48.2% (67 person-times) had yellowing of the white of eye or skin, 45.3% (63 person-times) had abdominal pain, 43.9% (61 person-times) had nausea, and 43.9% (61 person-times) had vomiting.

(7) Source of drinking water and dietary habits

The epidemiological investigation of 139 confirmed cases showed that the major sources of residential drinking water (multiple answers are allowed) are tap water which accounted for 61.2% (85 person-times), packaged water which accounted for 17.3% (24 person-times); in addition, spring water accounted for 5% (7 person-times), and groundwater accounted for 3.6% (5 person-times). As for dietary habits (multiple answers allowed), taking food at snack booths accounted for the largest percentage, accounting for 43.9% (61 person-times), followed by eating in restaurants accounting for 34.5% (48 person-times), and taking nutritional lunch or take-out lunch box accounting for 25.2% (35 person-times).

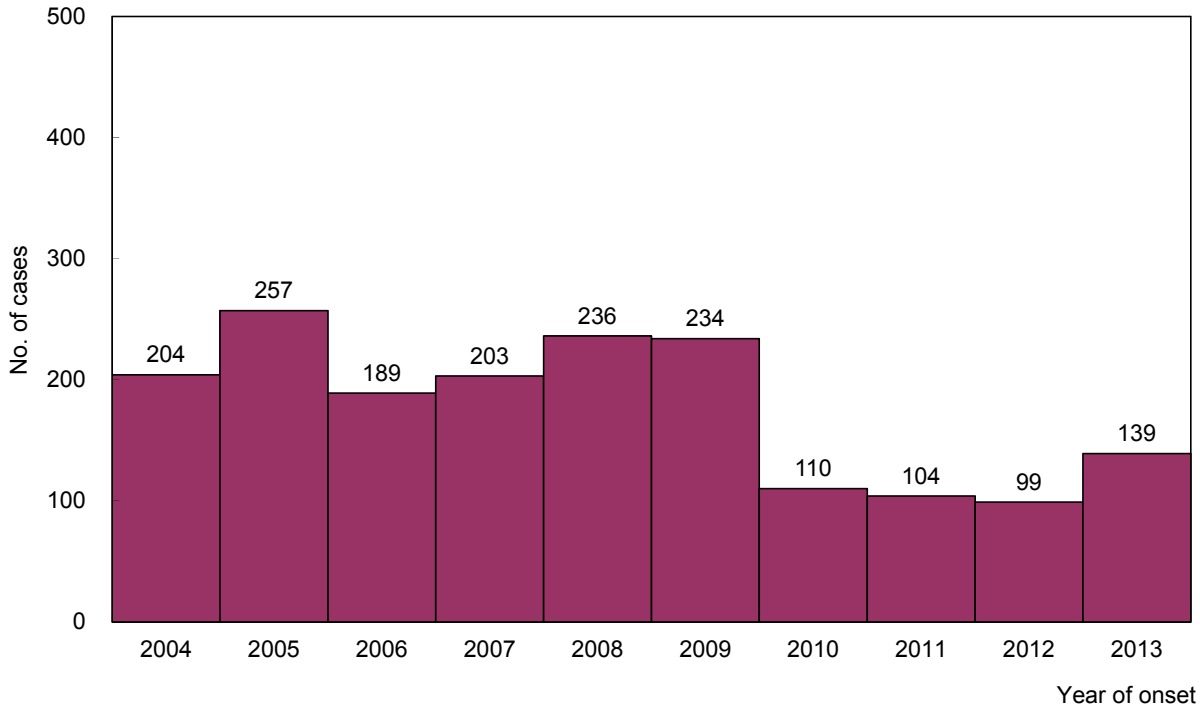


Figure 38 Number of confirmed Acute Hepatitis A cases, 2004-2013

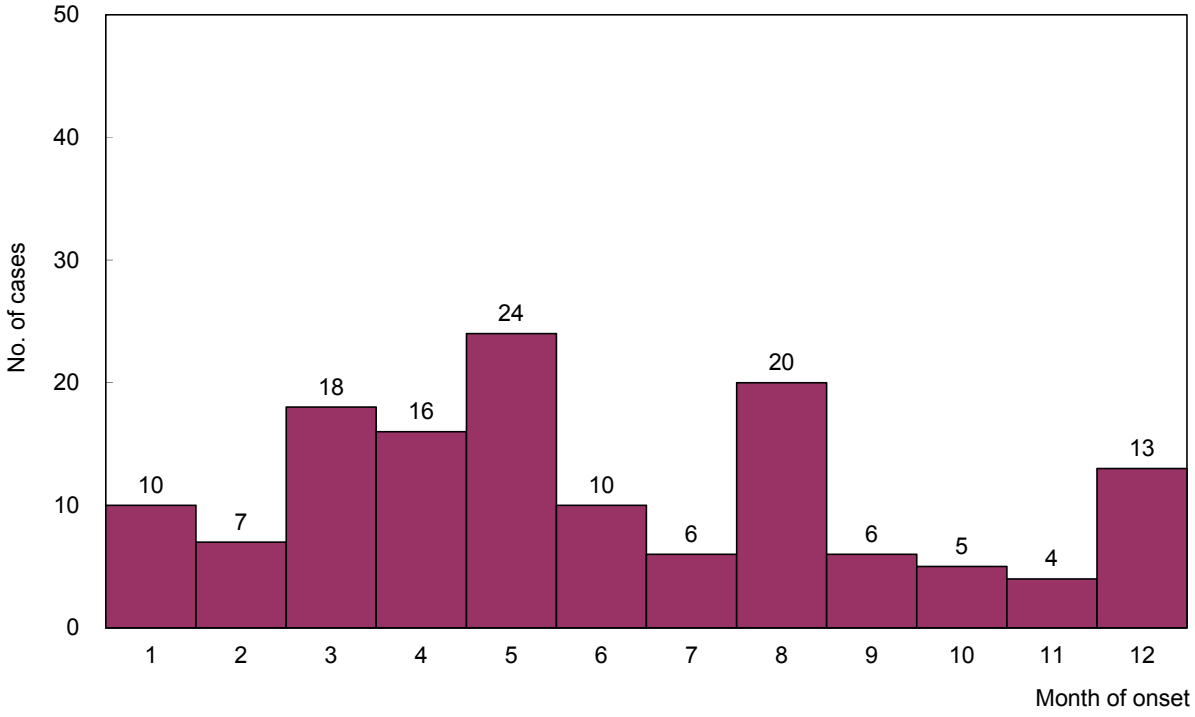


Figure 39 Number of confirmed Acute Hepatitis A cases, 2013

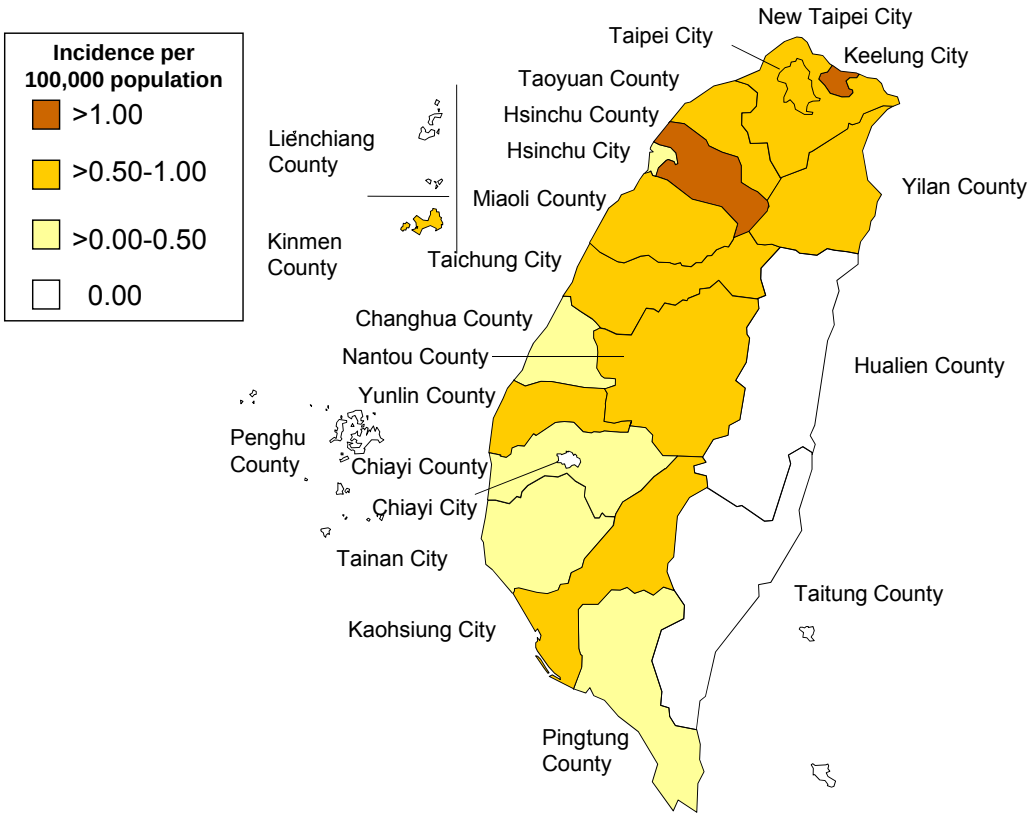


Figure 40 Geographical distribution by incidence of confirmed Acute Hepatitis A cases, 2013

Acute Hepatitis B

In 2013, 97 confirmed cases of acute hepatitis B (incidence rate: 0.42 per 100,000 population) were reported, which stayed the same as compared with 97 confirmed cases (incidence rate: 0.42 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 55 male cases (56.7%) and 42 female cases (43.3%) with male to female ratio of 1.3:1.0.

(2) By age group

There were 39 cases in 25-39 years age group, 38 cases in 40-64 years age group, 17 cases in 15-24 years age group, 2 cases in 65 years and over age group, and 1 case in 0-1 year age group.

(3) By month

Confirmed cases were reported in every month of the year without apparent concentration in any of the months. Except for August with 13 cases, February and September with 12 cases each, and January and November with 10 cases each, the other months of year all had less than 10 cases.

(4) By residential region

New Taipei City had the most confirmed cases with 21 cases reported, followed by Taoyuan County with 16 cases, Taipei City and Taichung City each with 13 cases. The other cities and counties all had 10 or less cases, in which Hsinchu City, Chiayi City, Taitung County, Kinmen County, Lienchiang County and Penghu County had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taoyuan County (0.79), followed by Nantou County (0.58) and Chiayi County (0.56).

(5) Imported cases and countries of infection

There were 9 imported cases of acute hepatitis B in 2013, including 4 cases from China, 2 cases from Vietnam, and 1 case each from Indonesia, Australia and Fiji Islands.

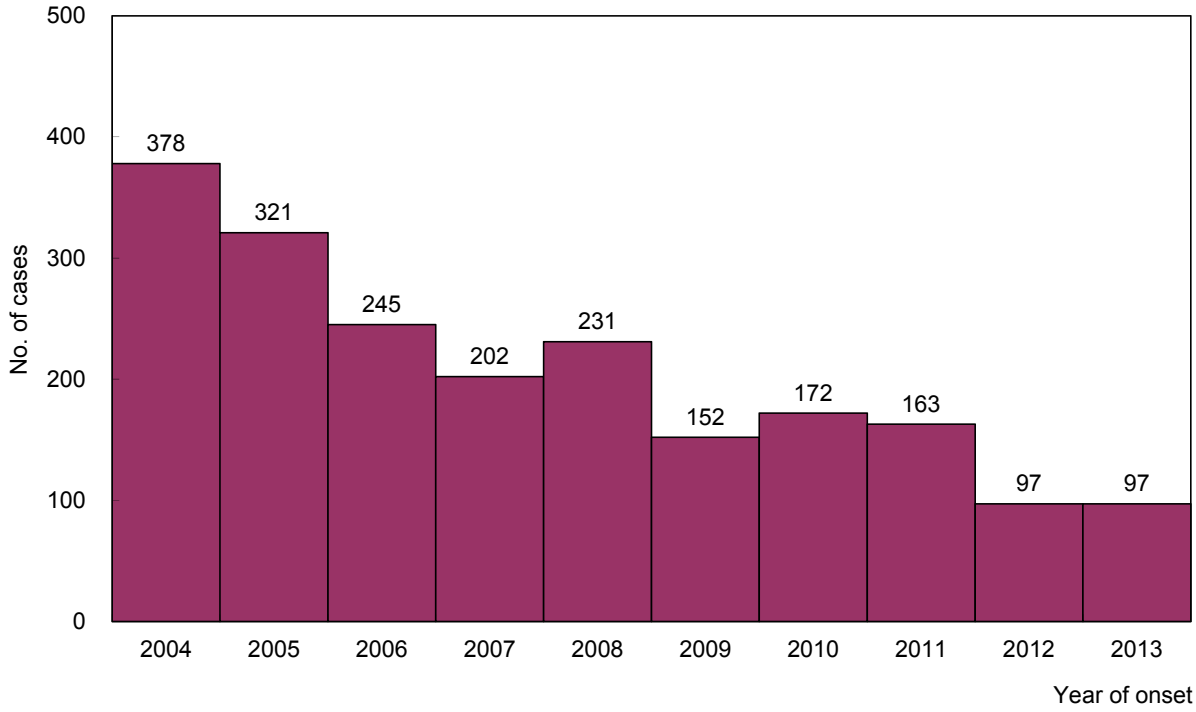


Figure 41 Number of confirmed Acute Hepatitis B cases, 2004-2013

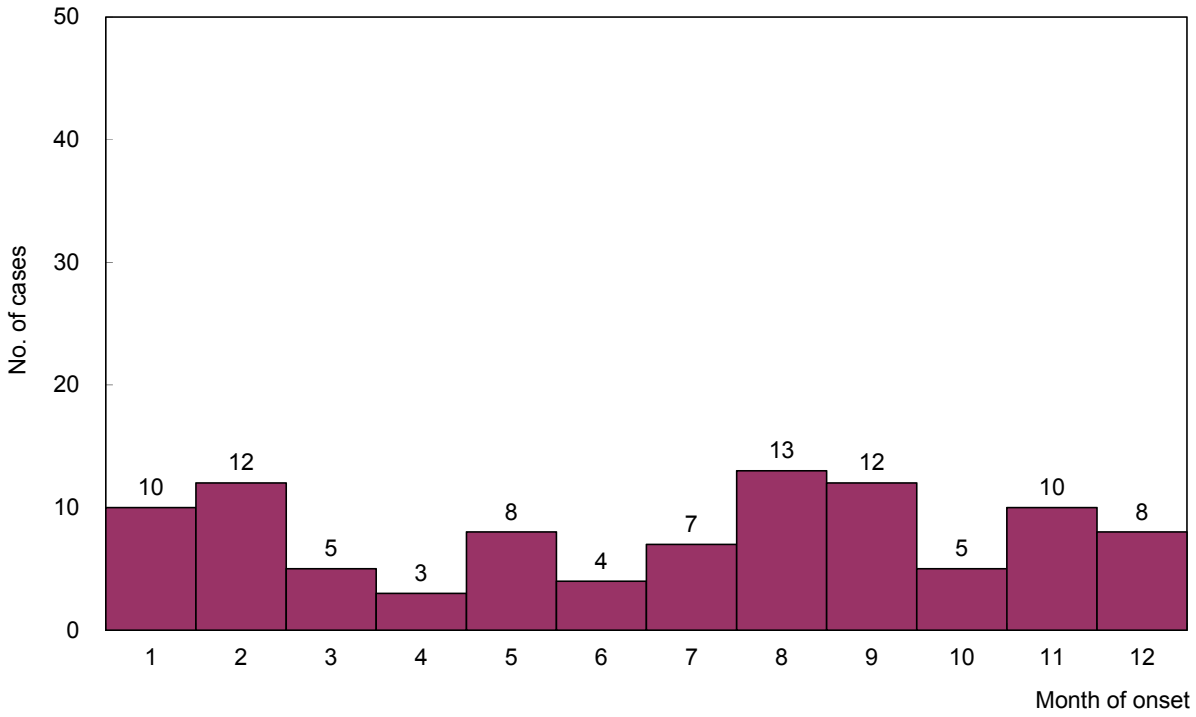


Figure 42 Number of confirmed Acute Hepatitis B cases, 2013

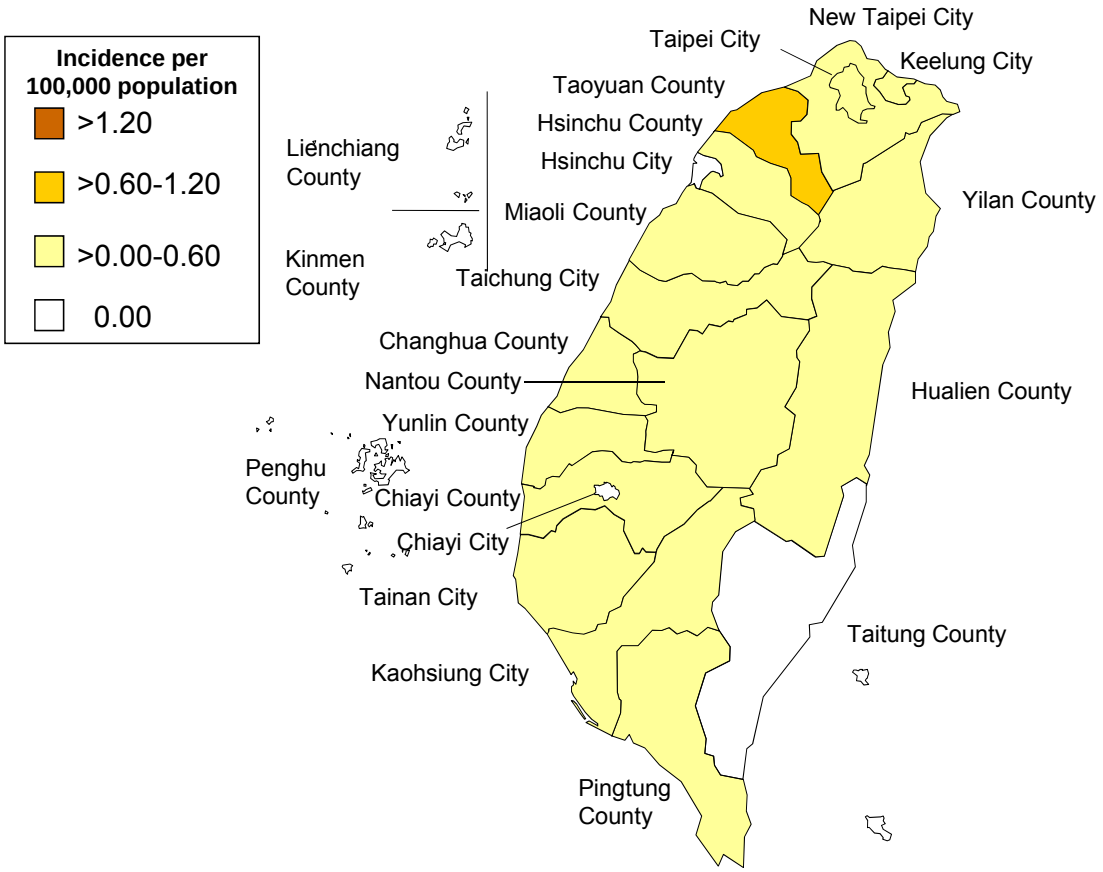


Figure 43 Geographical distribution by incidence of confirmed Acute Hepatitis B cases, 2013

Acute Hepatitis C

In 2013, 10 confirmed cases of acute hepatitis C (incidence rate: 0.04 per 100,000 population) were reported, which declined as compared with 34 confirmed cases (incidence rate: 0.15 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 5 male cases (50.0%) and 5 female cases (50.0%) with male to female ratio of 1.0:1.0.

(2) By age group

There were 5 cases in 65 years and over age group, 4 cases in 40-64 years age group, and 1 case in 25-39 years group.

(3) By month

There were 3 cases reported in March, 2 cases in June, and 1 case each in April, July, August, October and November, while the other months of the year did not have any confirmed cases.

(4) By residential region

Taoyuan County and Yunlin County each had 2 cases reported, while Taipei City, Yilan County, Miaoli County, Chiayi City, Kaohsiung City and Taitung County each had 1 case. The other cities and counties had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taitung County (0.44), followed by Chiayi City (0.37), and Yunlin County (0.28).

(5) Imported cases and countries of infection

There were no imported cases of acute hepatitis C in 2013.

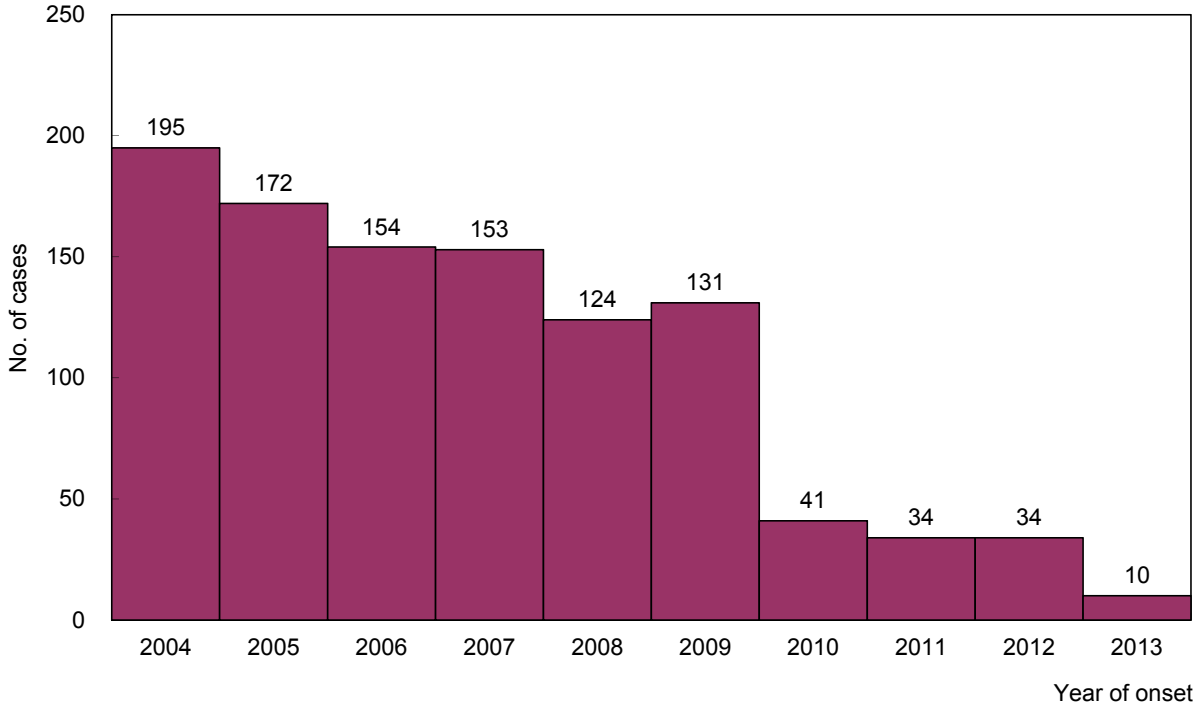


Figure 44 Number of confirmed Acute Hepatitis C cases, 2004-2013

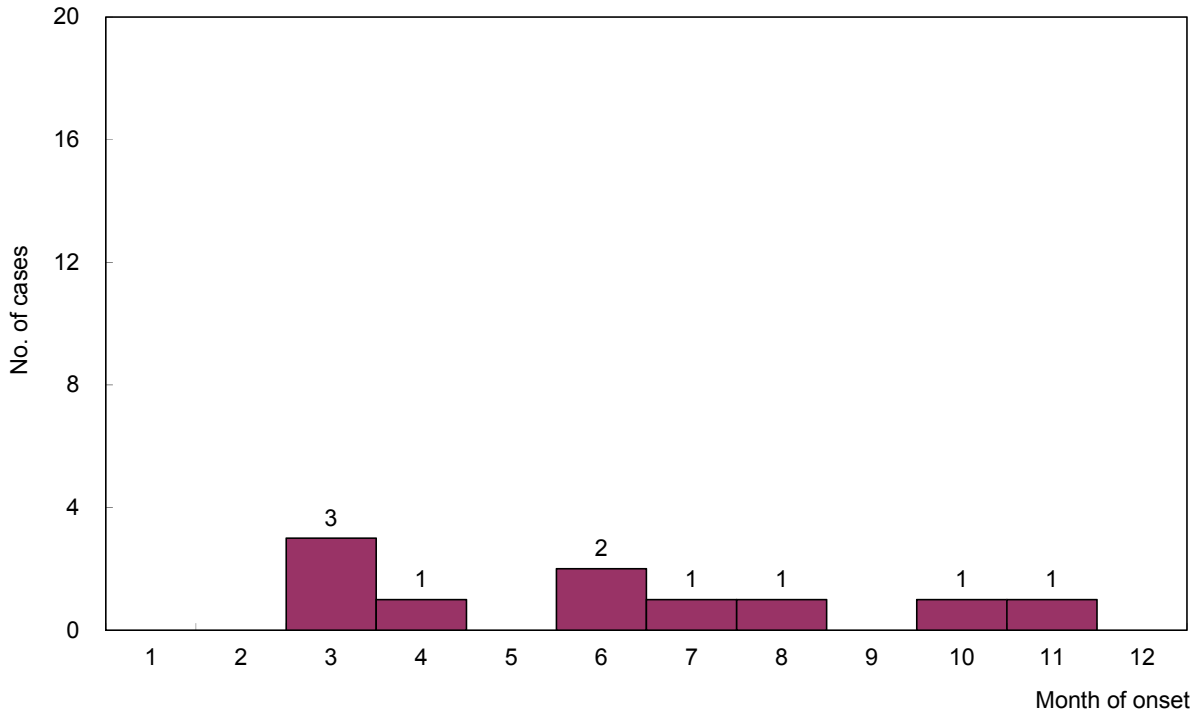


Figure 45 Number of confirmed Acute Hepatitis C cases, 2013

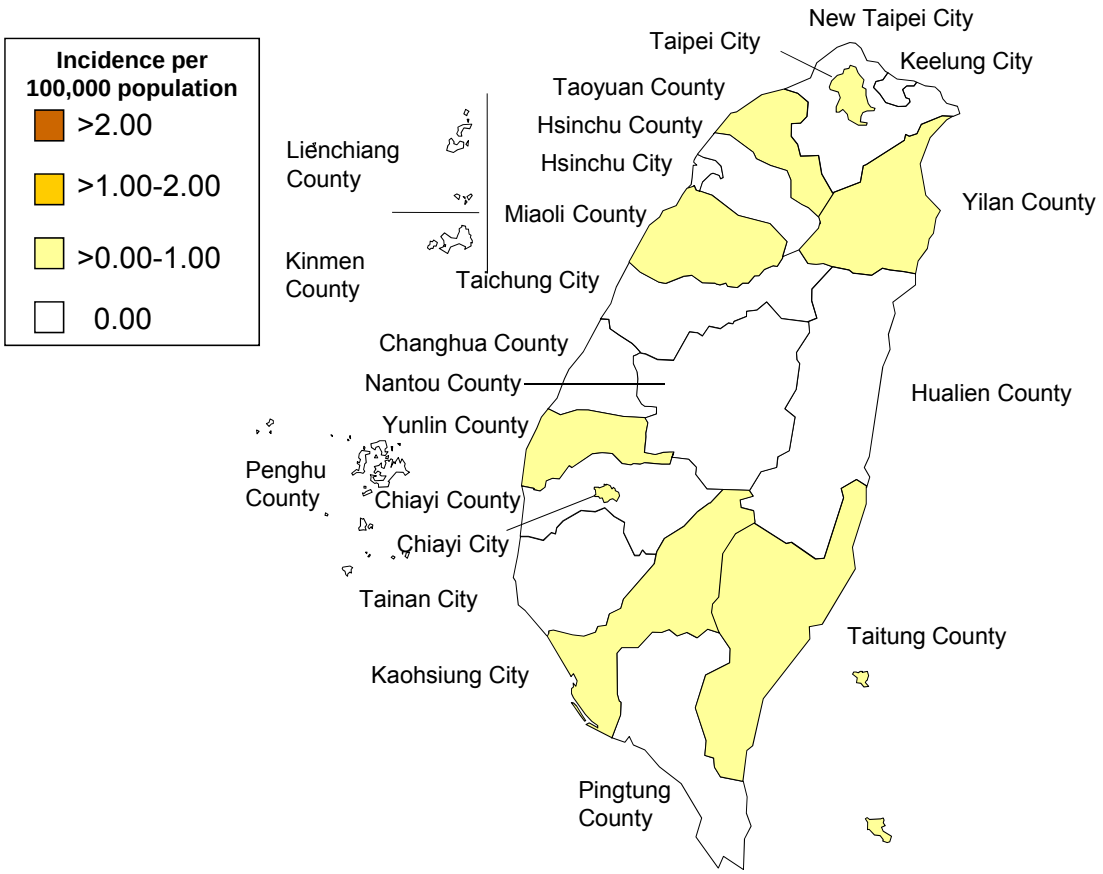


Figure 46 Geographical distribution by incidence of confirmed Acute Hepatitis C cases, 2013

Scrub Typhus

In 2013, 538 confirmed cases of scrub typhus (incidence rate: 2.30 per 100,000 population) were reported, which increased as compared with 460 confirmed cases (incidence rate: 1.98 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 328 male cases (61.0%) and 210 female cases (39.0%) with male to female ratio of 1.6:1.0.

(2) By age group

The cases occurred predominantly in adults over 25 years of age. In all, there were 238 cases in 40-64 years age group, 106 cases in 25-39 years age group, 90 cases in 65 years and over age group, 70 cases in 15-24 years age group, 27 cases in 5-14 years age group, and 7 cases in 1-4 years age group.

(3) By month

Confirmed cases were reported in every month of the year that concentrated mainly in June through October. July had the highest number of incidents with 92 cases reported, followed by 82 cases in June, 79 cases in October, 65 cases in August, 58 cases in September, 36 cases in January, 35 cases in May, 28 cases in November and December each, 19 cases in April, 9 cases in February and 7 cases in March.

(4) By residential region

Except for Keelung City that did not have confirmed cases, the other cities and counties all had cases reported. Penghu County had the most confirmed cases with 122 cases, followed by Kinmen County with 77 cases, Taitung County with 74 cases, Kaohsiung City and Hualien County each with 43 cases, Nantou County with 29 cases, and New Taipei City with 21 cases. The other cities and counties all had 20 or less cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Lienchiang County (144.83), followed by Penghu County (122.46), Kinmen County (65.86), Taitung County (32.81), and Hualien County (12.85), whereas the other cities and counties had incidence rate below 10.00.

(5) Imported cases and countries of infection

There was one imported case of scrub typhus in 2013 from China.

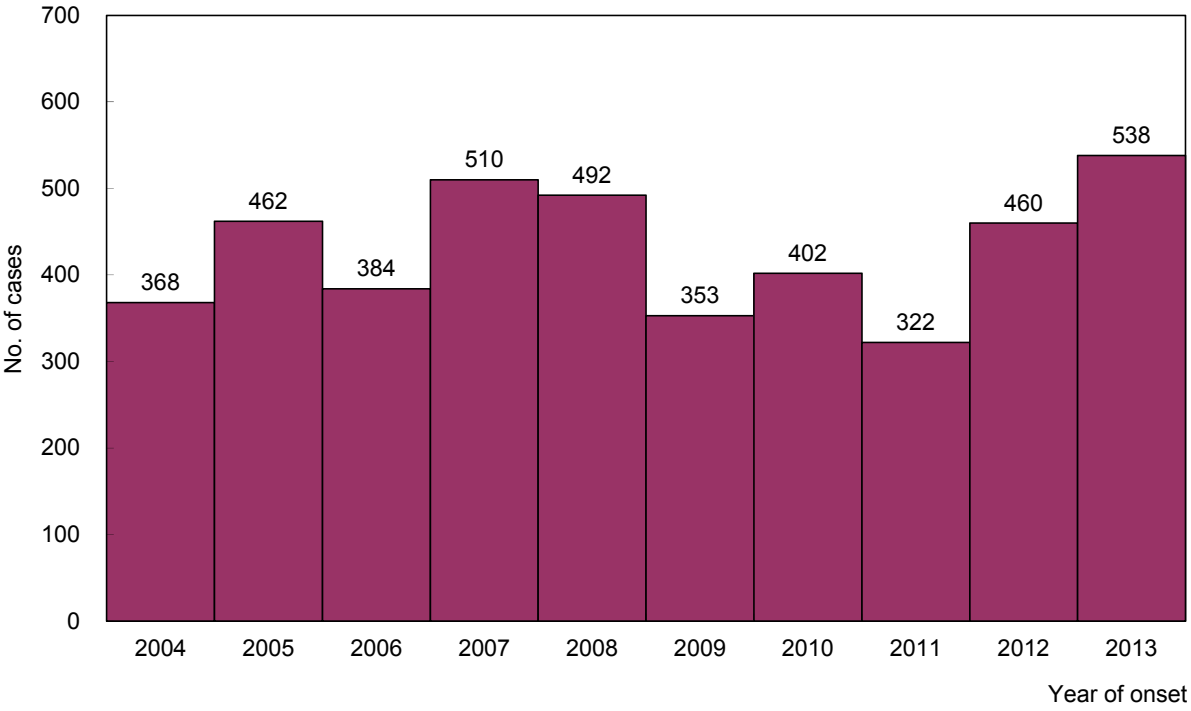


Figure 47 Number of confirmed Scrub Typhus cases, 2004-2013

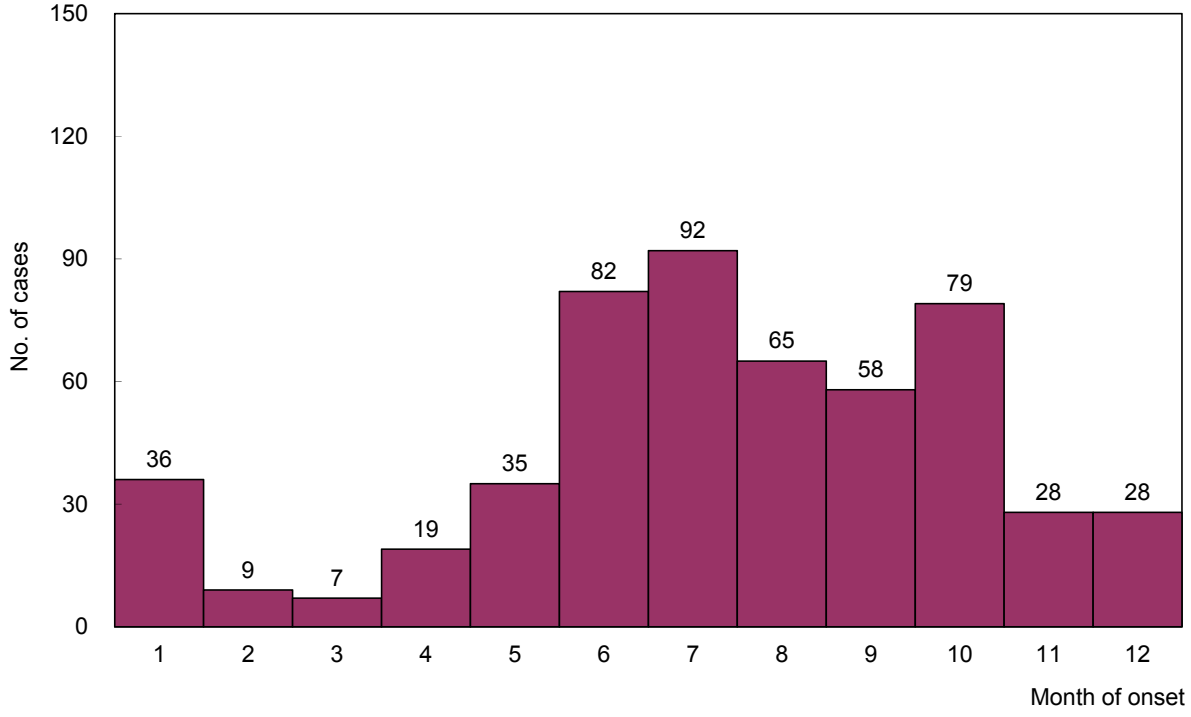


Figure 48 Number of confirmed Scrub Typhus cases, 2013

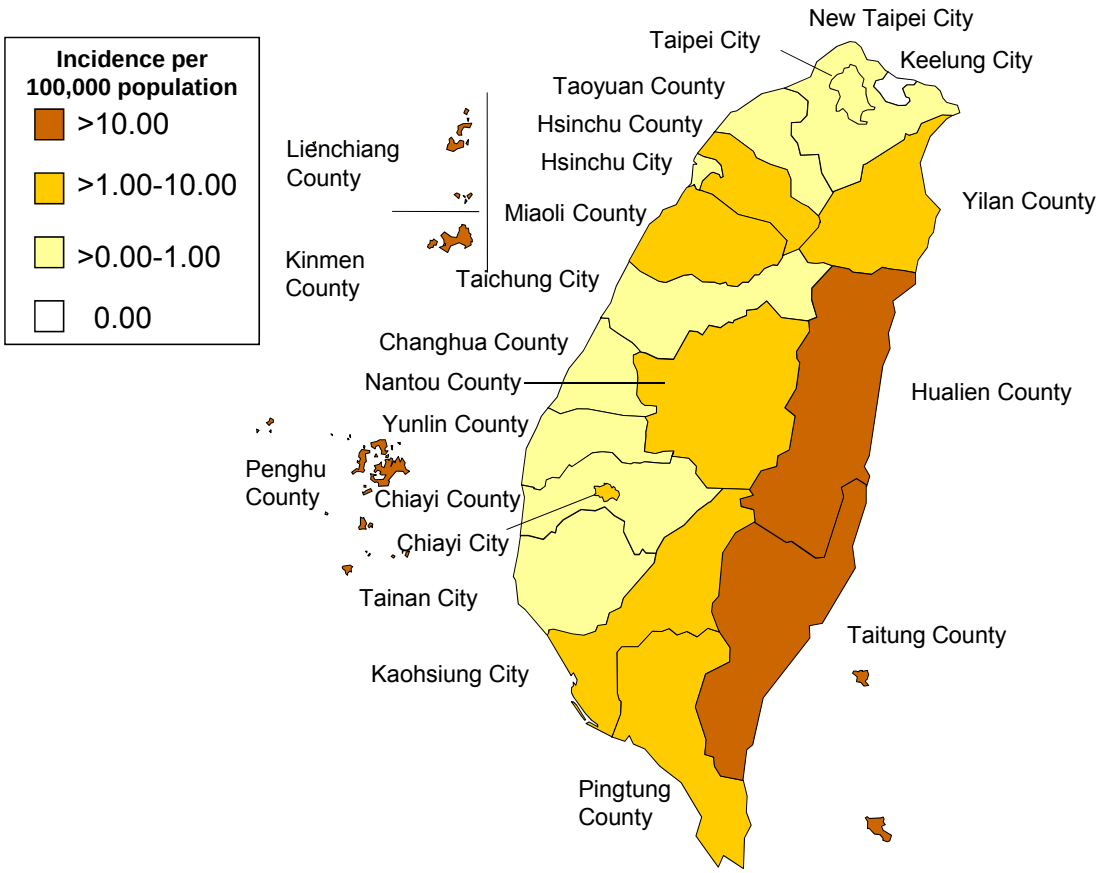


Figure 49 Geographical distribution by incidence of confirmed Scrub Typhus cases, 2013

Legionnaires' Disease

In 2013, 115 confirmed cases of legionnaires' disease (incidence rate: 0.49 per 100,000 population) were reported, which increased as compared with 88 confirmed cases (incidence rate: 0.38 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 89 male cases (77.4%) and 26 female cases (22.6%) with male to female ratio of 3.4:1.0.

(2) By age group

Except for 2 cases in 0-1 year age group, the other cases occurred in adults over 25 years of age. In all, there were 56 cases in 40-64 years age group, followed by 50 cases in 65 years and over age group, and 7 cases in 25-39 years age group.

(3) By month

Confirmed cases were reported in every month of the year where October had the most cases (16 cases), followed by 15 cases each in April and May,12 cases in September, 11 cases in June, 10 cases in December, 9 cases each in July and August, 6 cases in January, and 4 cases each in February, March and November.

(4) By residential region

Kaohsiung City had the highest number of incidents with 22 cases, followed by Taipei City with 19 cases, New Taipei City with 15 cases, Taichung City with 13 cases, Changhua County with 10 cases, Tainan City with 9 cases, Taoyuan County with 6 cases, and Pingtung County with 5 cases. The other cities and counties had less than 5 cases, in which Hsinchu City, Hsinchu County, Chiayi City, Taitung County, Penghu County, Kinmen County and Lienchiang County had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Kaohsiung City (0.79), followed by Changhua County (0.77), and Taipei City and Miaoli County, both ranking the third with incidence rate of 0.71.

(5) Imported cases and countries of infection

There were 4 imported cases of legionnaires' disease in 2013 with all of them from China.

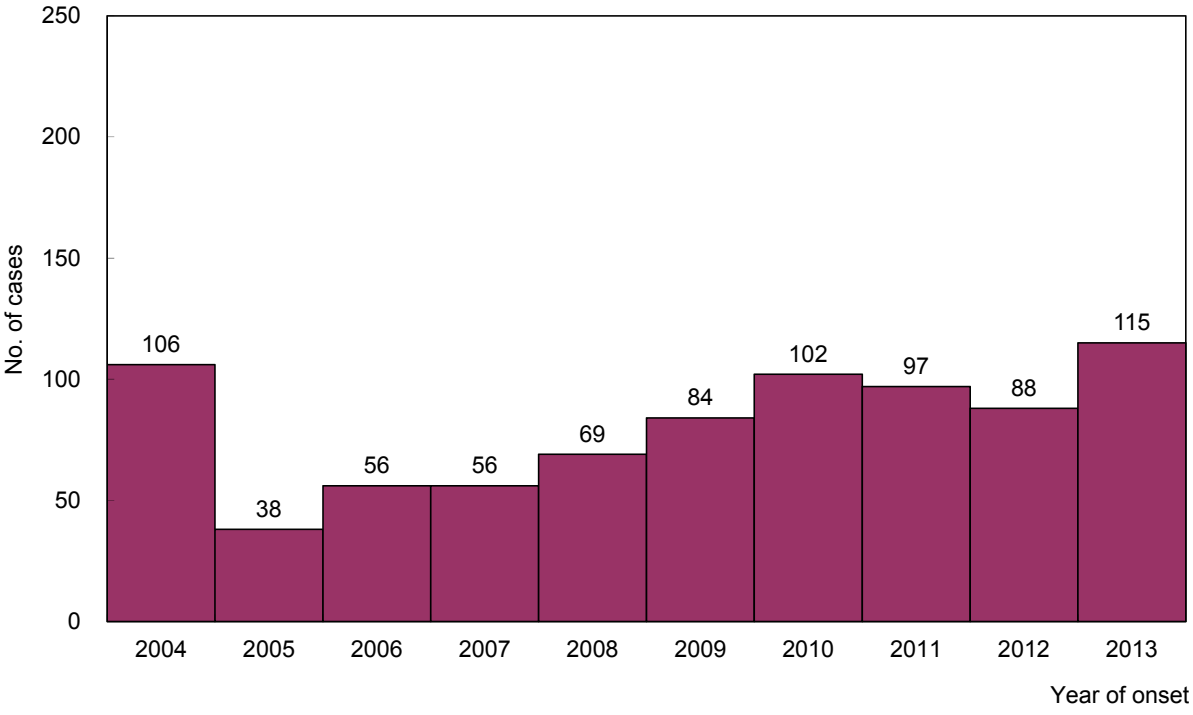


Figure 50 Number of confirmed Legionnaires' Disease cases, 2004-2013

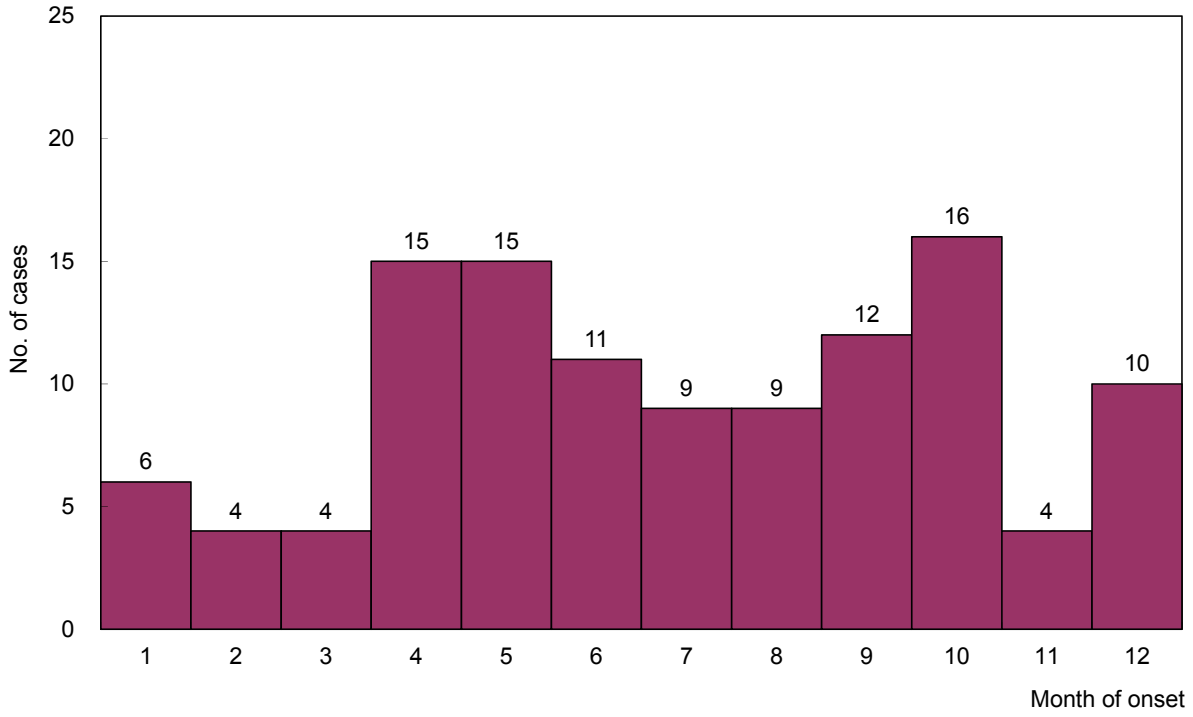


Figure 51 Number of confirmed Legionnaires' Disease cases, 2013

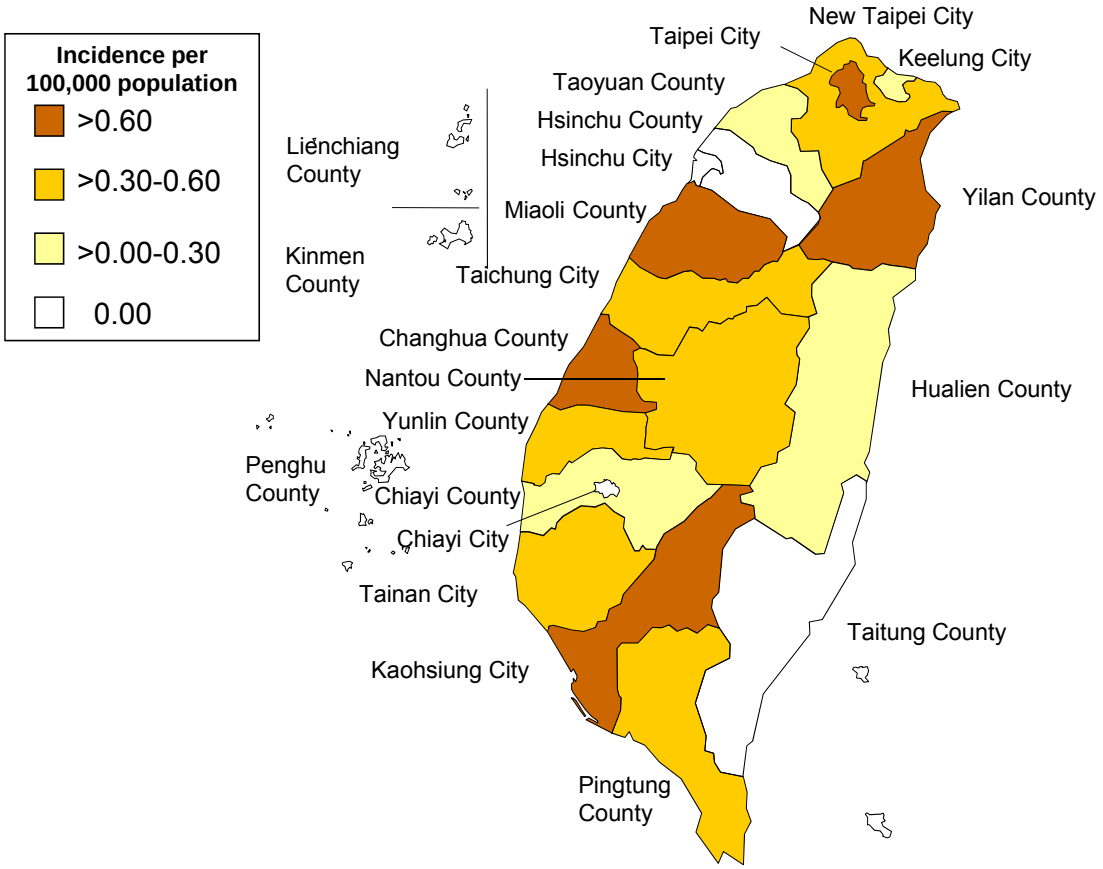


Figure 52 Geographical distribution by incidence of confirmed Legionnaires' Disease cases, 2013

Dengue Fever

In 2013, 860 confirmed cases of dengue fever (incidence rate: 3.68 per 100,000 population) were reported, which declined sharply as compared with 1,478 confirmed cases (incidence rate: 6.35 per 100,000 population) in 2012.

There were 16 confirmed cases of dengue hemorrhagic fever/dengue shock syndrome (incidence rate: 0.07 per 100,000 population) were reported in 2013, which dropped as compared with 36 cases (incidence rate: 0.15 per 100,000 population) in 2012.

Of the 860 confirmed cases, there were 264 imported cases and 596 indigenous cases, including 16 confirmed cases of dengue hemorrhagic fever (2 imported and 14 indigenous). The imported dengue hemorrhagic fever cases were resident in Tainan City and Kaohsiung City respectively; and indigenous cases were resident in Pingtung County (8 cases), Kaohsiung City (4 cases), and Tainan City (2 cases). The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

In the 264 imported cases, there were 143 male cases (54.2%) and 121 female cases (45.8%) with male to female ratio of 1.2:1.0.

In the 596 indigenous cases, there were 291 male cases (48.8%) and 305 female cases (51.2%) with male to female ratio of 1.0:1.0.

(2) By age group

In the 264 imported cases, 2 cases (0.8%) were in 1-4 years age group, 12 cases (4.5%) were in 5-14 years age group, 51 cases (19.3%) were in 15-24 years age group, 122 cases (46.2%) were in 25-39 years age group, 69 cases (26.1%) were in 40-64 years age group, and 8 cases (3.0%) were in 65 years and over age group.

In the 596 indigenous cases, 2 cases (0.3%) were in 1-4 years age group, 43 cases (7.2%) were in 5-14 years age group, 55 cases (9.2%) were in 15-24 years age group, 119 cases (20.0%) were in 25-39 years age group, 263 cases (44.1%) were in 40-64 years age group, and 114 cases (19.1%) were in 65 years and over age group.

(3) By month

In the 264 imported cases, confirmed cases were reported in every month of the year. In all, July had the highest number of incidents with 47 cases reported, followed by 44 cases in August, 29 cases in June, 23 cases in September, 22 cases in December, 21 cases in March, 18 cases in February, 17 cases in October, 15 cases each in January and November, 8 cases in May and 5 cases in April.

In the 596 indigenous cases, confirmed cases were reported in every month of the year. In all, September through December had the highest number of incidents, in particular November that had 190 cases reported, followed by 154 cases in December, 82 cases in October, 71 cases in September, 26 cases in June, 22 cases in August, 18 cases in May, 14 cases in January, 10 cases in April, 7 cases in July, and 1 case each in February and March.

(4) By residential region

In the 264 imported cases, the number of incidents was the highest in Taipei City with 54 cases reported, followed by 45 cases in Taoyuan County, 35 cases in New Taipei City, 32 cases in Kaohsiung City, 21 cases in Taichung City, 15 cases in Hsinchu County, and 13 cases in Tainan City. The other cities and counties all had less than 10 imported cases, in which Chiayi City, Taitung County, Kinmen County and Lienchiang County did not have confirmed imported cases.

The 596 indigenous cases were resident in 8 cities and counties, including 475 cases in Pingtung County, 70 cases in Kaohsiung City, 38 cases in Tainan City, 9 cases in Taipei City, and 1 case each in New Taipei City, Taoyuan County, Taichung City, and Chiayi County.

Overall, the incidence rate of confirmed cases per 100,000 population was the highest in Pingtung County (56.12), followed by Kaohsiung City (3.67), and Hsinchu County (2.85).

(5) Imported cases and countries of infection

In the 264 imported cases, there were 71 cases (26.9%) from Indonesia, 63 cases (23.9%) from Thailand, 38 cases (14.4%) from Philippines, 26 cases (9.8%) from Malaysia, 17 cases (6.4%) from Vietnam, 10 cases each (3.8% each) from India and Singapore, 9 cases (3.4%) from Myanmar, 7 cases (2.7%) from Cambodia, 4 cases (1.5%) from Sri Lanka, 3 cases (1.1%) from China, 2 cases (0.8%) from Laos, and 1 case each (0.4% each) from Fiji Islands, Brazil, Solomon Islands, and Saint Lucia.

(6) By virus type

In the 264 imported cases, 50 cases were caused by dengue virus type 1, 33 cases by type 2, 18 cases by type 3, and 16 cases by type 4. The other 147 cases were undetermined.

In the 596 indigenous cases, 6 cases were caused by dengue virus type 1, 31 cases by type 2, 1 case by type 3, and 0 case by type 4. The other 558 cases were undetermined.

(7) By clinical symptoms

In the 860 confirmed cases, 847 cases developed clinical symptoms, while the other 13 cases were asymptomatic. In the 264 imported cases, 3 cases were asymptomatic; in the 596 indigenous cases, 10 cases were asymptomatic.

Table 26 Virus type and infection source of confirmed Dengue Fever cases, 2013

Virus type/ infection source	DEN-1	DEN-2	DEN-3	DEN-4	Undetermined	Total
Indonesia	12	9	11	-	39	71
Thailand	7	10	2	3	41	63
Philippines	4	2	-	7	25	38
Malaysia	9	5	1	2	9	26
Vietnam	4	1	1	2	9	17
India	2	4	1	-	3	10
Singapore	7	-	1	-	2	10
Myanmar	3	2	-	-	4	9
Cambodia	2	-	-	-	5	7
Sri Lanka	-	-	-	-	4	4
China	-	-	-	-	3	3
Laos	-	-	-	-	2	2
Brazil	-	-	-	1	-	1
Solomon Islands	-	-	1	-	-	1
Fiji	-	-	-	-	1	1
St. Lucia	-	-	-	1	-	1
Taiwan	6	31	1	-	558	596
Total	56	64	19	16	705	860

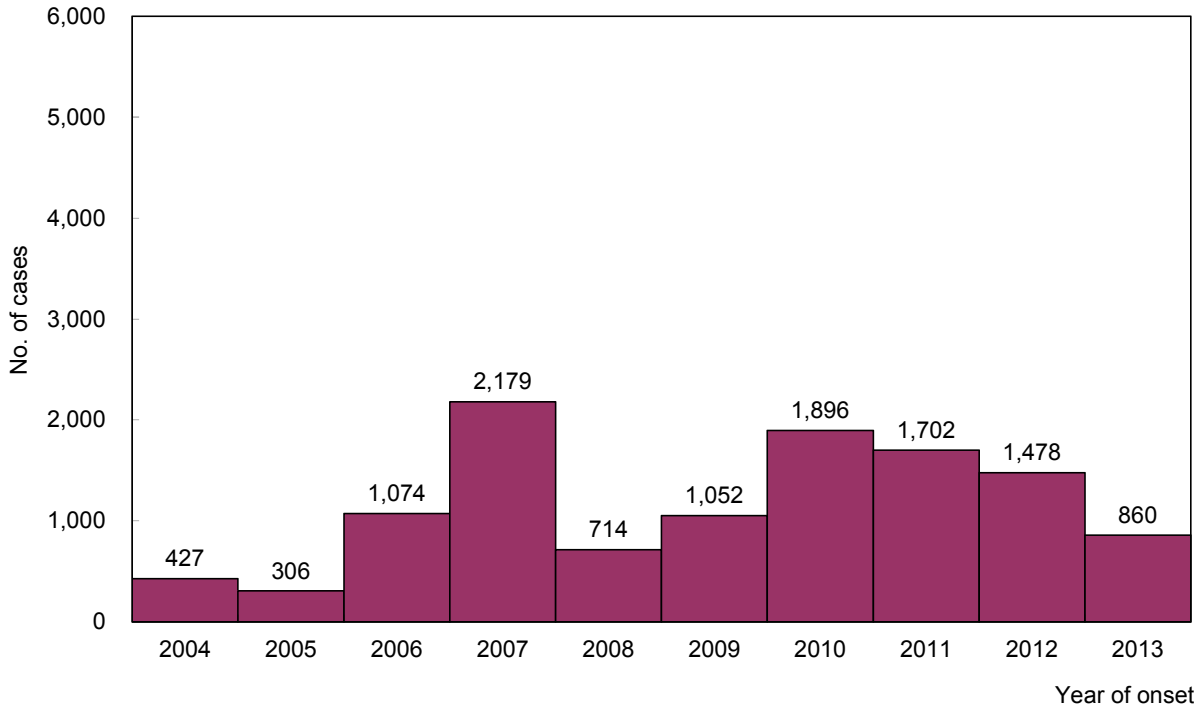


Figure 53 Number of confirmed Dengue Fever cases, 2004-2013

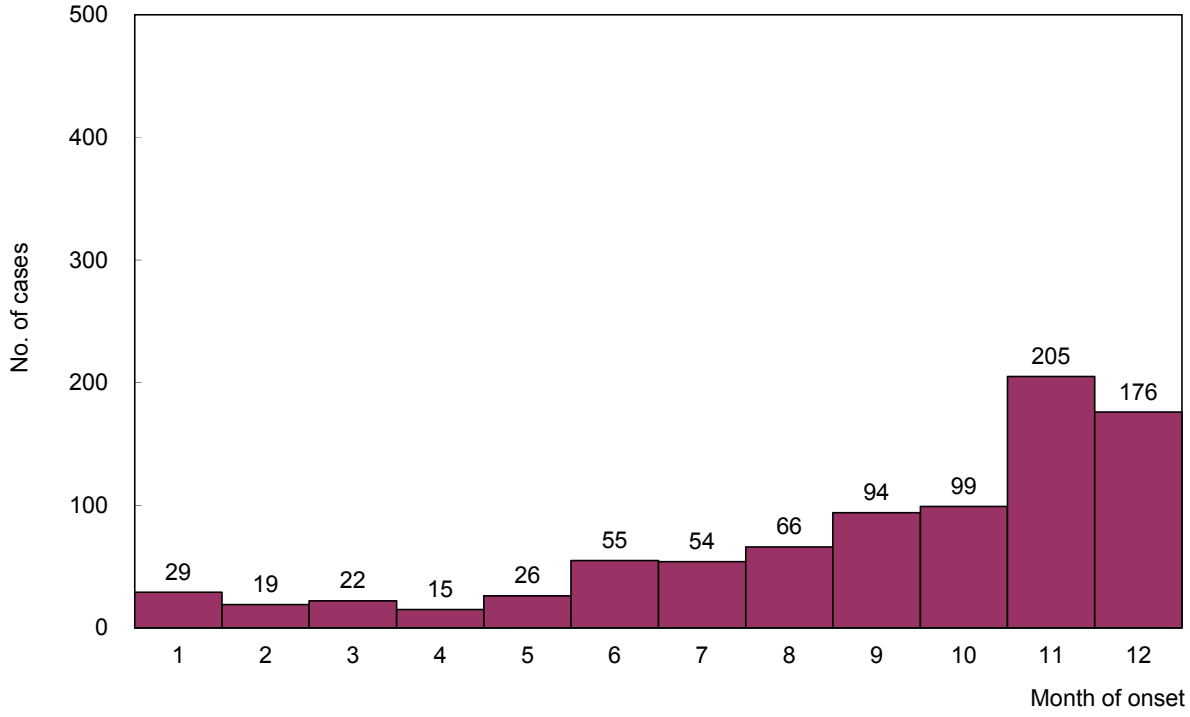


Figure 54 Number of confirmed Dengue Fever cases, 2013

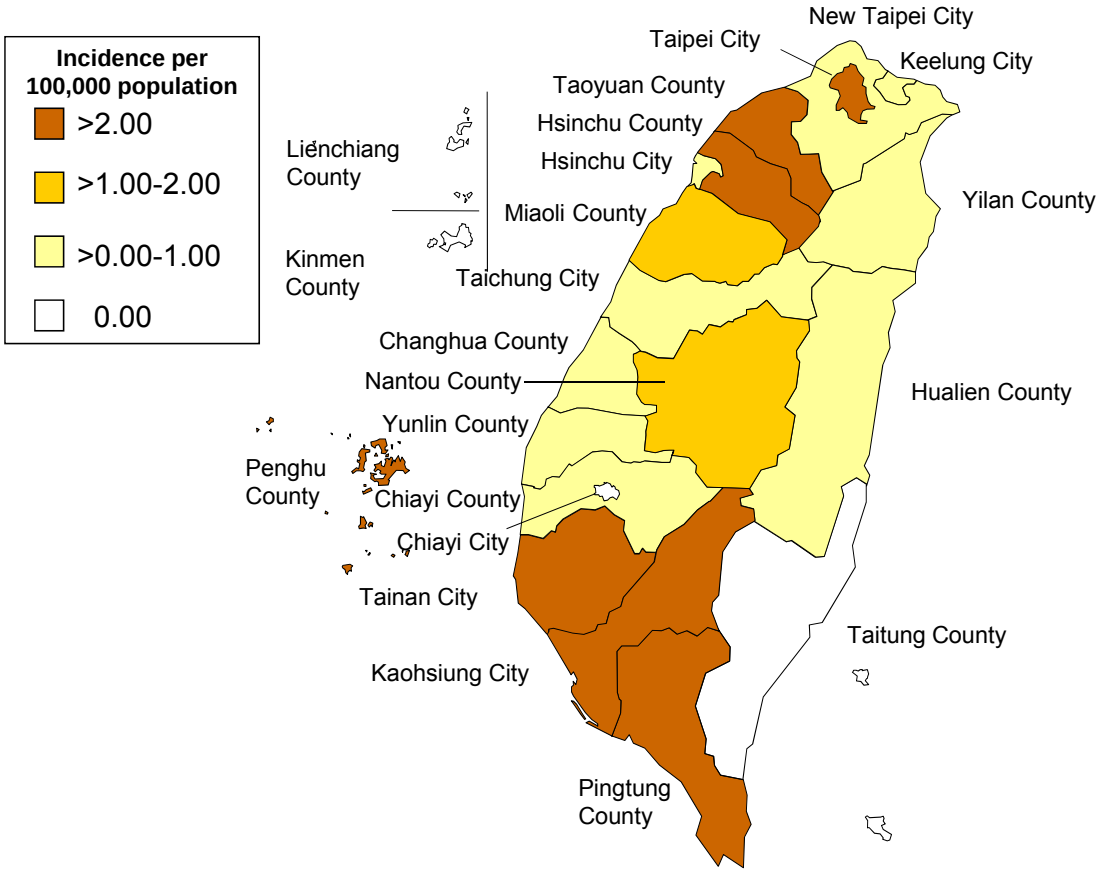


Figure 55 Geographical distribution by incidence of confirmed Dengue Fever cases, 2013

Enteroviruses Infection with Severe Complications

In 2013, 12 confirmed cases of enteroviruses infection with severe complications (incidence rate: 0.05 per 100,000 population) were reported, which declined sharply as compared with 153 confirmed cases (incidence rate: 0.66 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 9 male cases (75.0%) and 3 female cases (25.0%) with male to female ratio of 3.0:1.0.

(2) By age group

The cases occurred primarily in age groups under 14 years of age. In all, there were 8 cases in 1-4 years age group (4 cases were 1 year of age, 2 cases were 2 years of age, 1 case was 3 years of age and 1 case was 4 years of age), 2 cases in 0-1 year age group, and 1 case each in 5-14 years age group, and 25-39 years age group.

Of the 2 cases in 0-1 year age group, 1 cases was less than 1 month old and 1 case was 4 months old.

(3) By month

There were 3 confirmed cases each in April, July and December, and 1 case each in January, June and November. The other months of the year did not have confirmed cases.

(4) By residential region

Taichung City had the most confirmed cases with 4 cases reported, followed by New Taipei City and Hsinchu County with 2 cases each, and Taipei City, Taoyuan County, Tainan City, and Hualien County with 1 case each. The other cities and counties had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Hsinchu County (0.38), followed by Hualien County (0.30), and Taichung City (0.15).

(5) Imported cases and countries of infection

There was one imported case of enteroviruses infection with severe complications from China in 2013.

(6) Pathogen identification

After assay with enzyme-linked immunosorbent assays (ELISA) of IgM, virus culture, and RT-PCR, EV71 was the main virus isolated in 7 confirmed cases (6 cases with EV71, and 1 case with both EV71 and Coxsackie A2 isolated). There were 5 cases involving other types of enterovirus, including Coxsackie virus A6 with 3 cases as well as Coxsackie virus A5 and Echovirus 30 with 1 case each.

Table 27 Number of confirmed Enteroviruses Infection with Severe Complications cases by age, 2010-2013

	2010		2011		2012		2013	
	No.	%	No.	%	No.	%	No.	%
>=0, <7m	3	18.8	4	6.8	21	13.7	2	16.7
>=7m, <1yr	3	18.8	4	6.8	21	13.7	-	-
>=1, <4 yrs	9	56.3	34	57.6	75	49.0	7	58.3
>=4, <7 yrs	1	6.3	14	23.7	19	12.4	2	16.7
>=7, <16 yrs	-	-	3	5.1	16	10.5	-	-
>=16 yrs	-	-	-	-	1	0.7	1	8.3
Unknown	-	-	-	-	-	-	-	-
Total	16	100.0	59	100.0	153	100.0	12	100.0

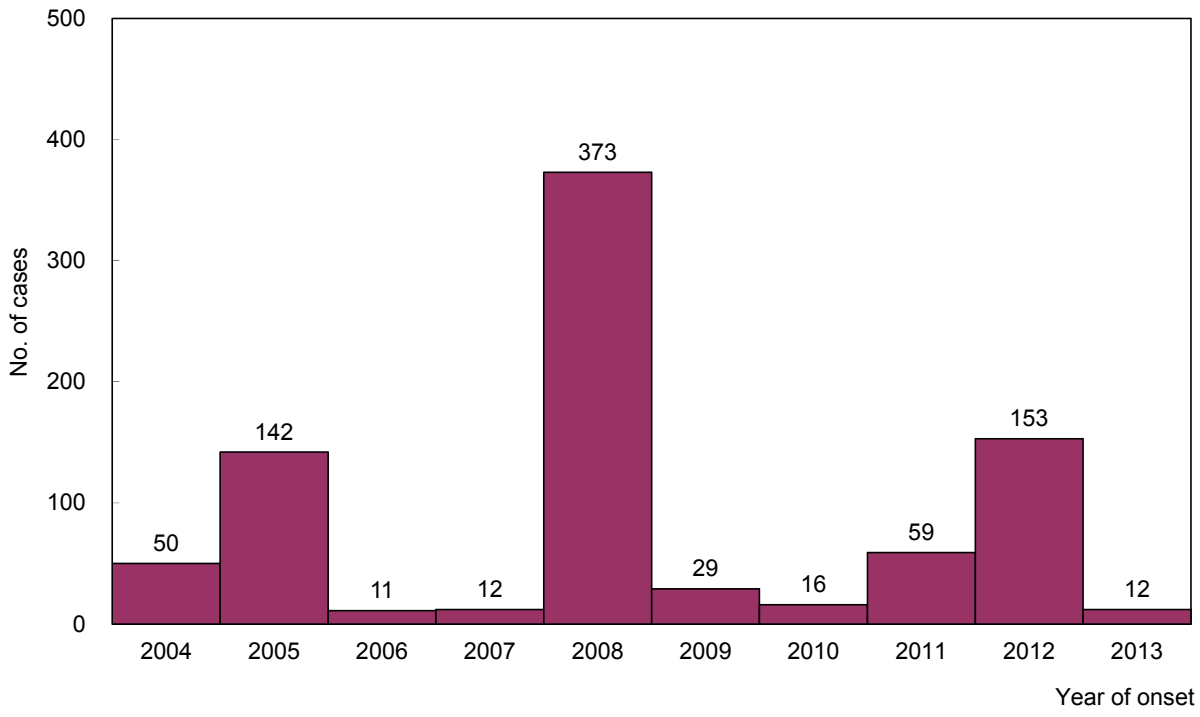


Figure 56 Number of confirmed Enteroviruses Infection with Severe Complications cases, 2004-2013

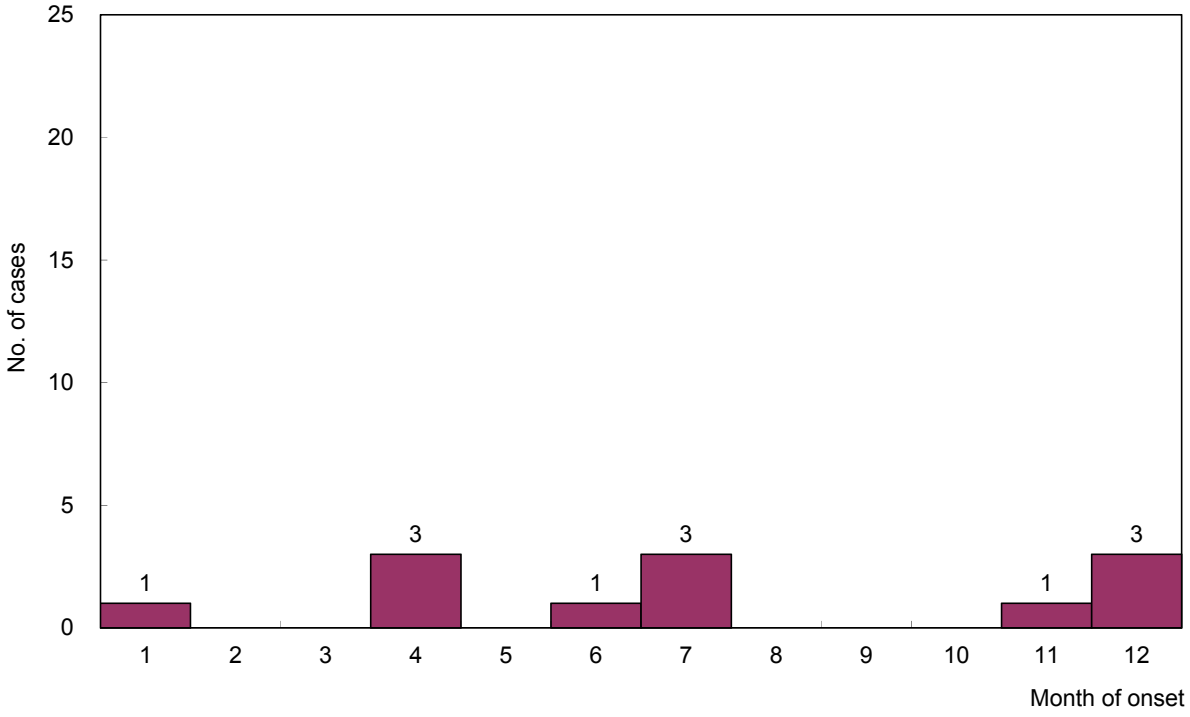


Figure 57 Number of confirmed Enteroviruses Infection with Severe Complications cases, 2013

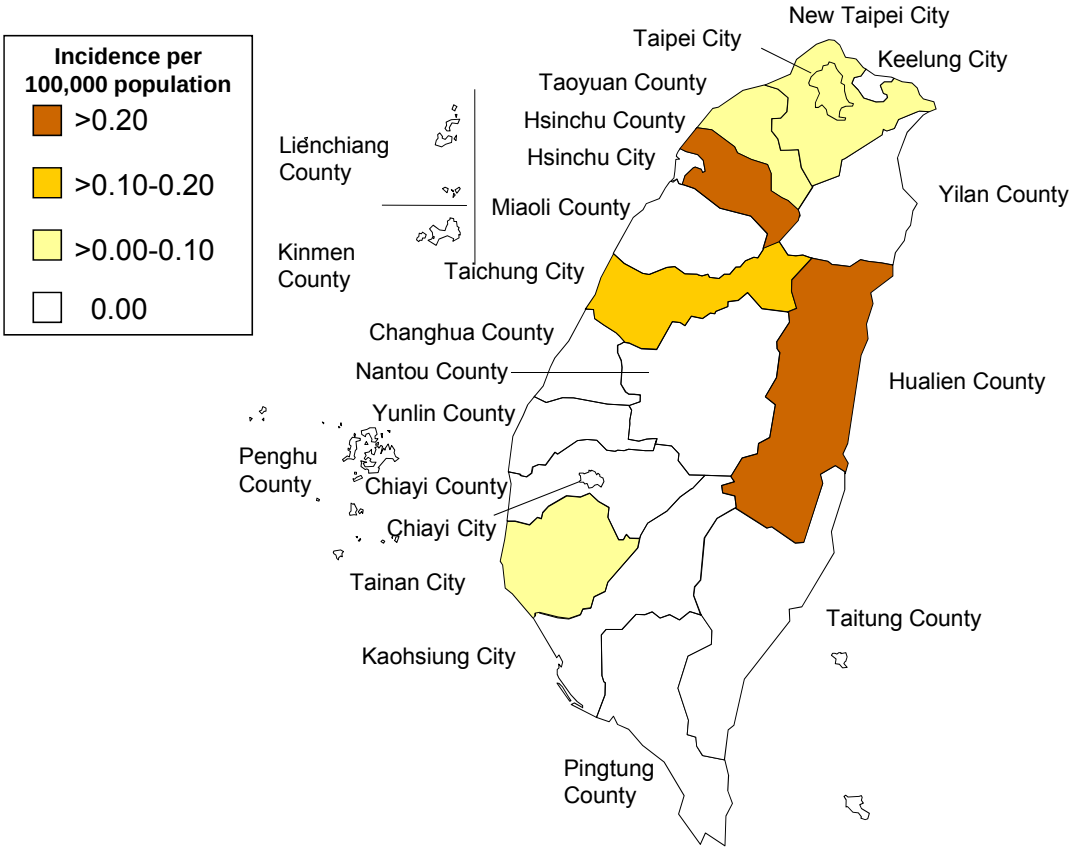


Figure 58 Geographical distribution by incidence of confirmed Enteroviruses Infection with Severe Complications cases, 2013

Malaria

In 2013, 13 confirmed cases of malaria (incidence rate: 0.06 per 100,000 population) were reported, which increased slightly as compared with 12 confirmed cases (incidence rate: 0.05 per 100,000 population) in 2012. All cases in 2013 were imported. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 8 male cases (61.5%) and 5 female cases (38.5%) with male to female ratio of 1.6:1.0.

(2) By age group

The cases occurred mostly in 40-64 years age groups with 8 cases reported, followed by 25-39 years age group with 3 cases and 65 years and over age group with 2 cases.

(3) By month

There were 4 cases in February, 2 cases each in July and November, and 1 case each in January, April, May, August and December, while no cases were reported in the other months of the year.

(4) By residential region

New Taipei City had the highest number of incidents with 4 cases reported, followed by Kaohsiung City with 3 cases, Taipei City with 2 cases, and Keelung City, Taichung City, Chiayi City and Pingtung County each with 1 case. The other cities and counties had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Chiayi City (0.37), followed by Keelung City (0.27) and Pingtung County ranking the third with incidence rate of 0.12.

(5) Imported cases and countries of infection

In the 13 imported cases, 5 cases (38.5%) were from Asia, specifically with 1 case each from Indonesia, India, Thailand, Cambodia and Myanmar; 7 cases (53.8%) were from Africa, specifically with 3 cases from Nigeria, and 1 case each from Burkina Faso, Ghana, Ethiopia and Liberia; 1 case (7.7%) was from Oceania, specifically from Papua New Guinea.

(6) Types of infectious protozoan

By the types of infectious protozoa, there were 5 cases of *Plasmodium vivax* infection and 8 cases of *P. falciparum* infection.

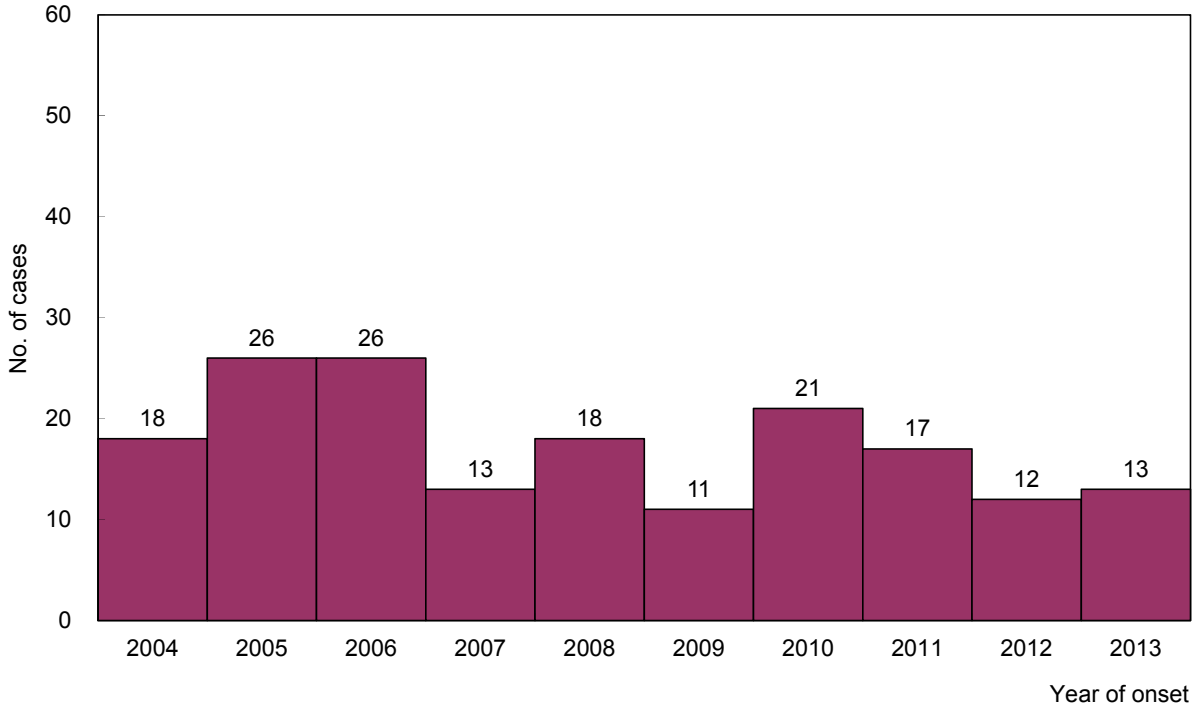


Figure 59 Number of confirmed imported Malaria cases, 2004-2013

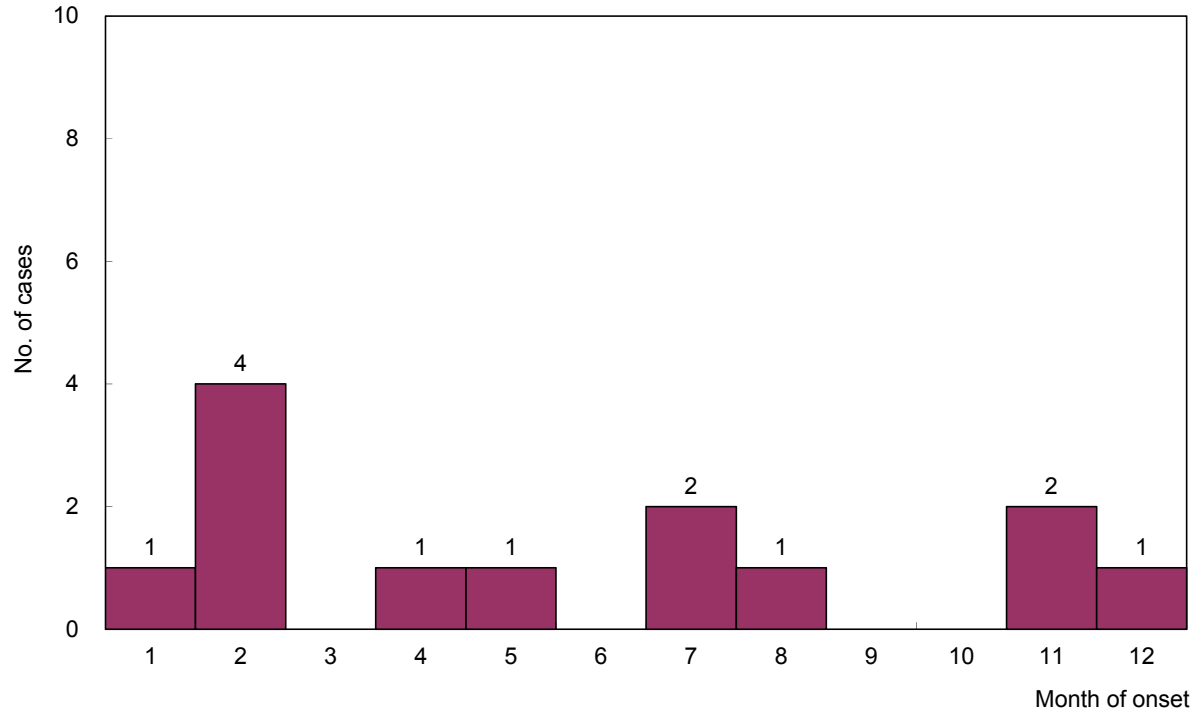


Figure 60 Number of confirmed imported Malaria cases, 2013

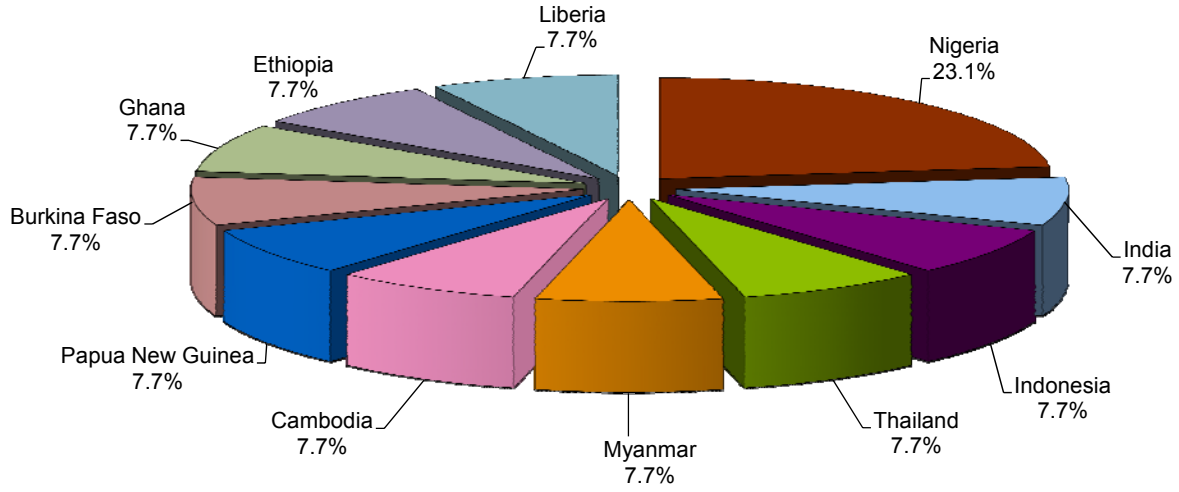


Figure 61 Infections source of confirmed imported Malaria cases, 2013

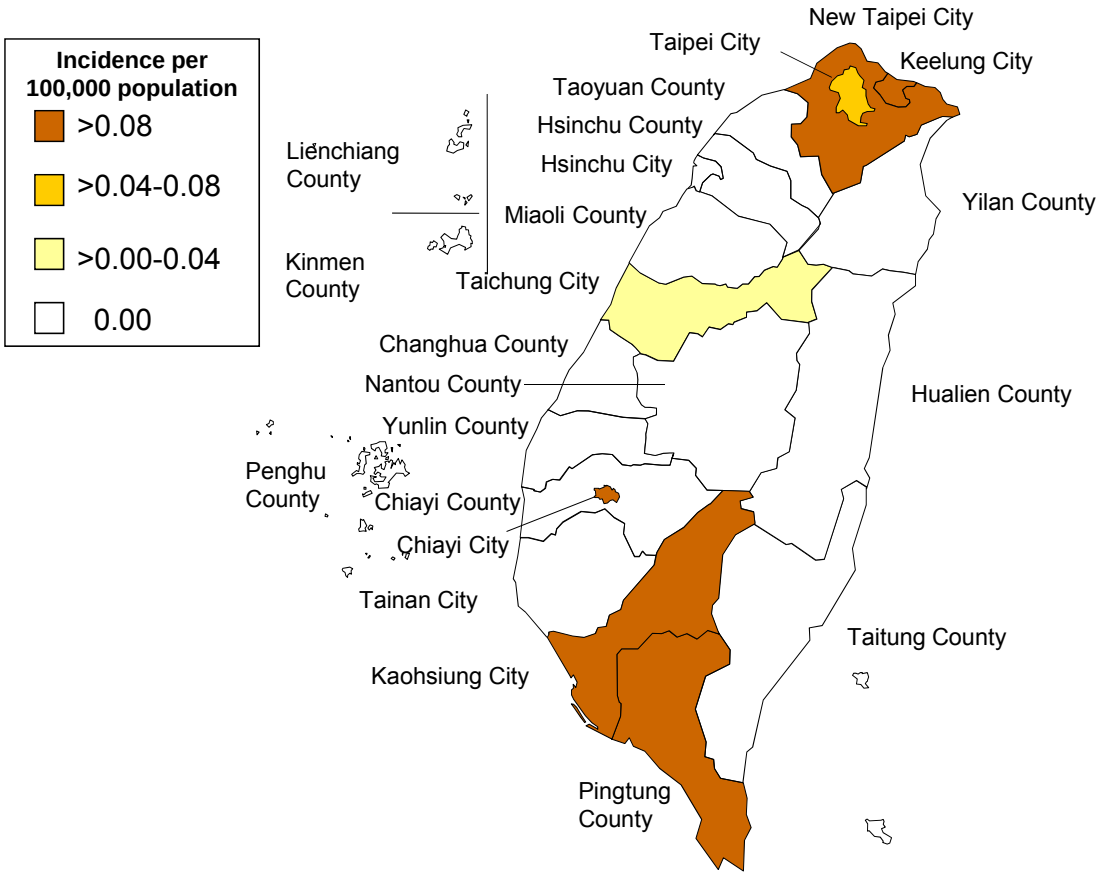


Figure 62 Geographical distribution by incidence of confirmed imported Malaria cases, 2013

Shigellosis

In 2013, 155 confirmed cases of shigellosis (incidence rate: 0.66 per 100,000 population) were reported, of which 131 cases were imported. In comparison with 155 confirmed cases (incidence rate: 0.67 per 100,000 population) in 2012, of which 106 cases were imported, the number of cases stayed the same in 2013, but the number of confirmed imported cases had been on the rise. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

In the 131 imported cases, there were 35 male cases (26.7%) and 96 female cases (73.3%) with male to female ratio of 0.4:1.0.

In the 24 indigenous cases, there were 16 male cases (66.7%) and 8 female cases (33.3%) with male to female ratio of 2.0:1.0.

(2) By age group

In the 131 imported cases, there were 76 cases in 25-39 years age group, 43 cases in 15-24 years age group, 10 cases in 40-64 years age group, and 2 cases in 5-14 years age group.

In the 24 indigenous cases, there were 7 cases each in 15-24 years age group and 25-39 years age group, 5 cases in 5-14 years age group, 2 cases in 65 years and over age group, and 1 case each in 0-1, 1-4, and 40-64 years age groups.

(3) By month

In the 131 imported cases, confirmed cases were reported in every month of the year where July had the highest number of incidents with 23 confirmed cases reported, followed by 15 cases in January, 11 cases each in February, March, May, and August, 10 cases in November, 9 cases each in September and December, 8 cases in April, 7 cases in October, and 6 cases in June.

In the 24 indigenous cases, confirmed cases were reported in every month of the year except for February, July and October. May and August had the highest number of incidents with 5 confirmed cases, followed by 4 cases in January, 3 cases in December, 2 cases each in April and September, and 1 case each in March, June and November.

(4) By residential region

In the 131 imported cases, New Taipei City had the highest number of incidents with 47 confirmed cases reported, followed by Taipei City with 30 cases, Taoyuan County with 15 cases, Keelung City with 8 cases, Yilan County and Taichung City each with 4 cases, Hsinchu City, Yunlin County and Kaohsiung City each with 3 cases, Hsinchu County, Changhua County, Chiayi County, Pingtung County and Hualien County each with 2 cases, and Miaoli County, Nantou County, Tainan City and Penghu County each with 1 case. Chiayi City, Taitung County, Kinmen County and Lienchiang County had no confirmed imported cases.

In the 24 indigenous cases, New Taipei City had the highest number of incidents with 7 confirmed cases reported, followed by Hualien County with 6 cases, Taoyuan County with

4 cases, Taichung City with 2 cases, and Hsinchu County, Miaoli County, Tainan City, Yilan County and Kinmen County each with 1 case. The other cities and counties had no confirmed indigenous cases.

In all, the incidence rate of confirmed cases per 100,000 population was the highest in Hualien County (2.39), followed by Keelung City (2.13) and New Taipei City (1.37).

(5) Imported cases and countries of infection

In the 131 imported cases, 105 cases were from Indonesia, 12 cases from Cambodia, 4 cases from China, 3 cases from Thailand, 2 cases each from Malaysia and India, and 1 case each from Philippines, Vietnam and Australia.

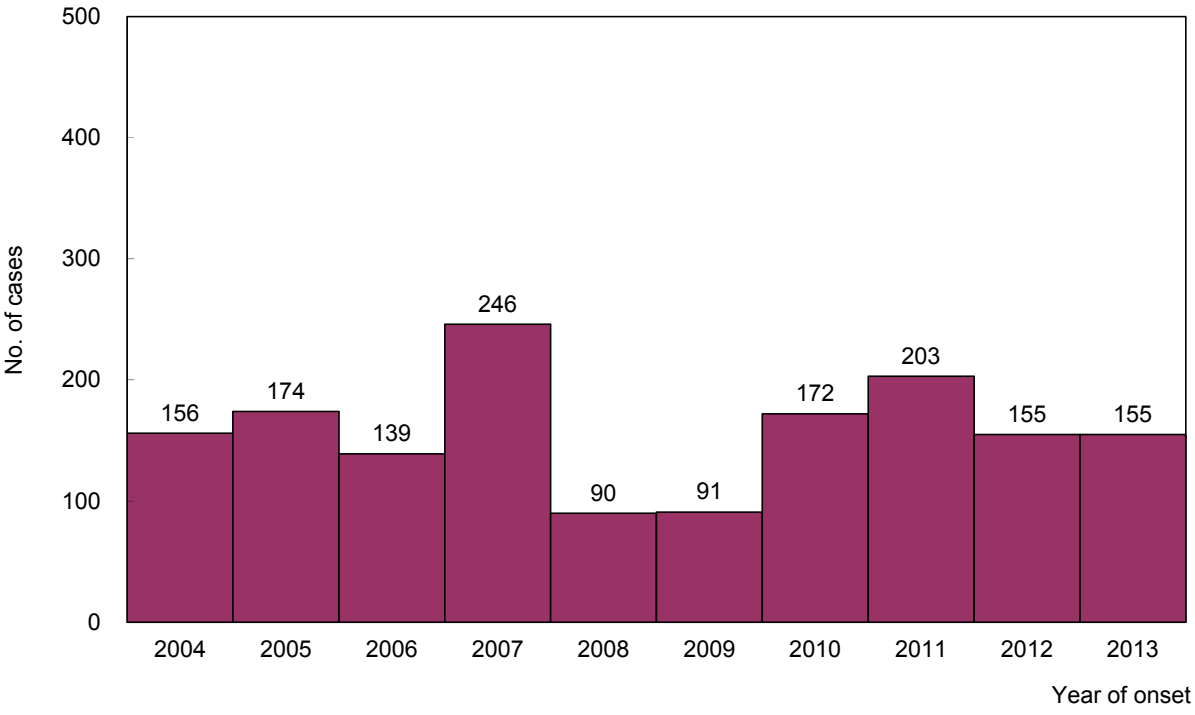


Figure 63 Number of confirmed Shigellosis cases, 2004-2013

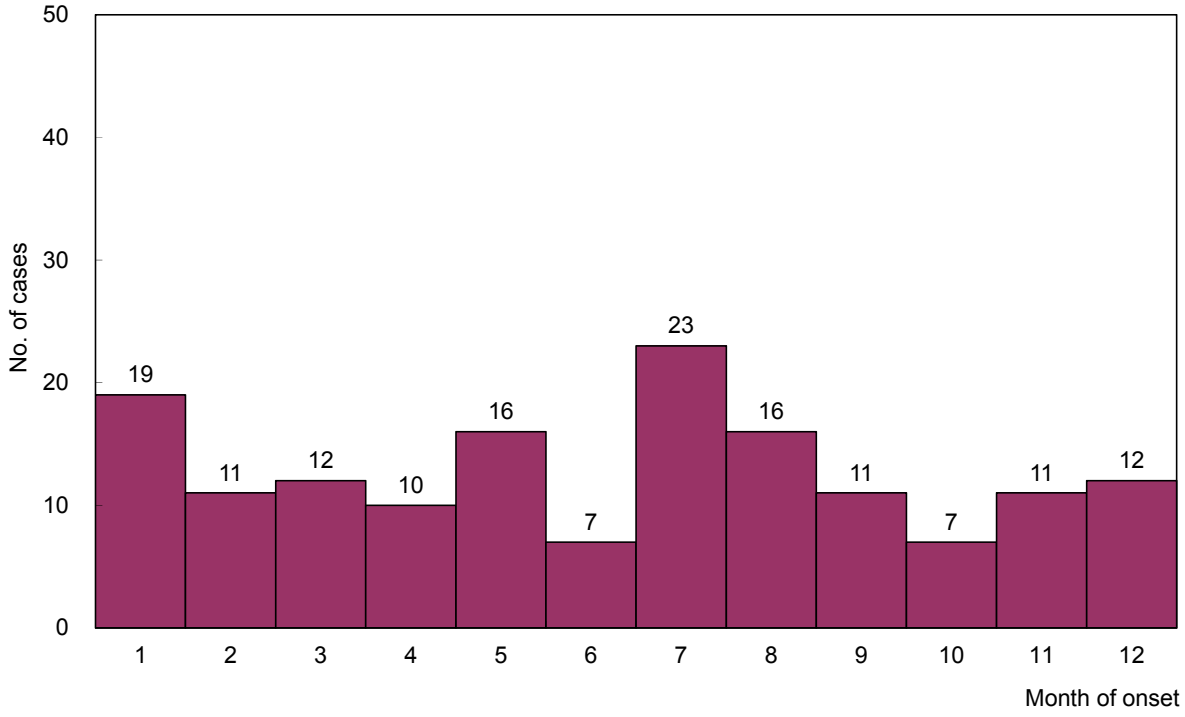


Figure 64 Number of confirmed Shigellosis cases, 2013

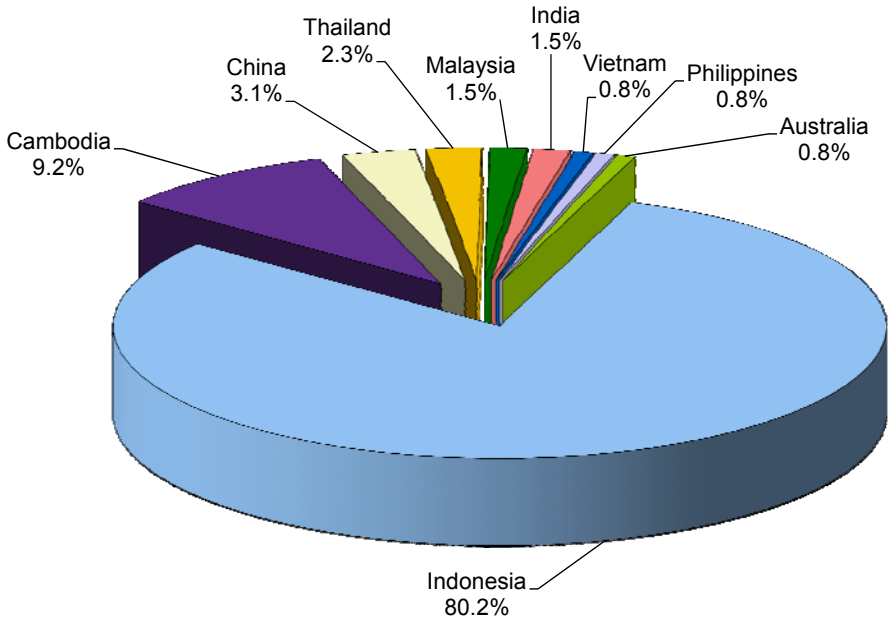


Figure 65 Infections source of confirmed imported Shigellosis cases, 2013

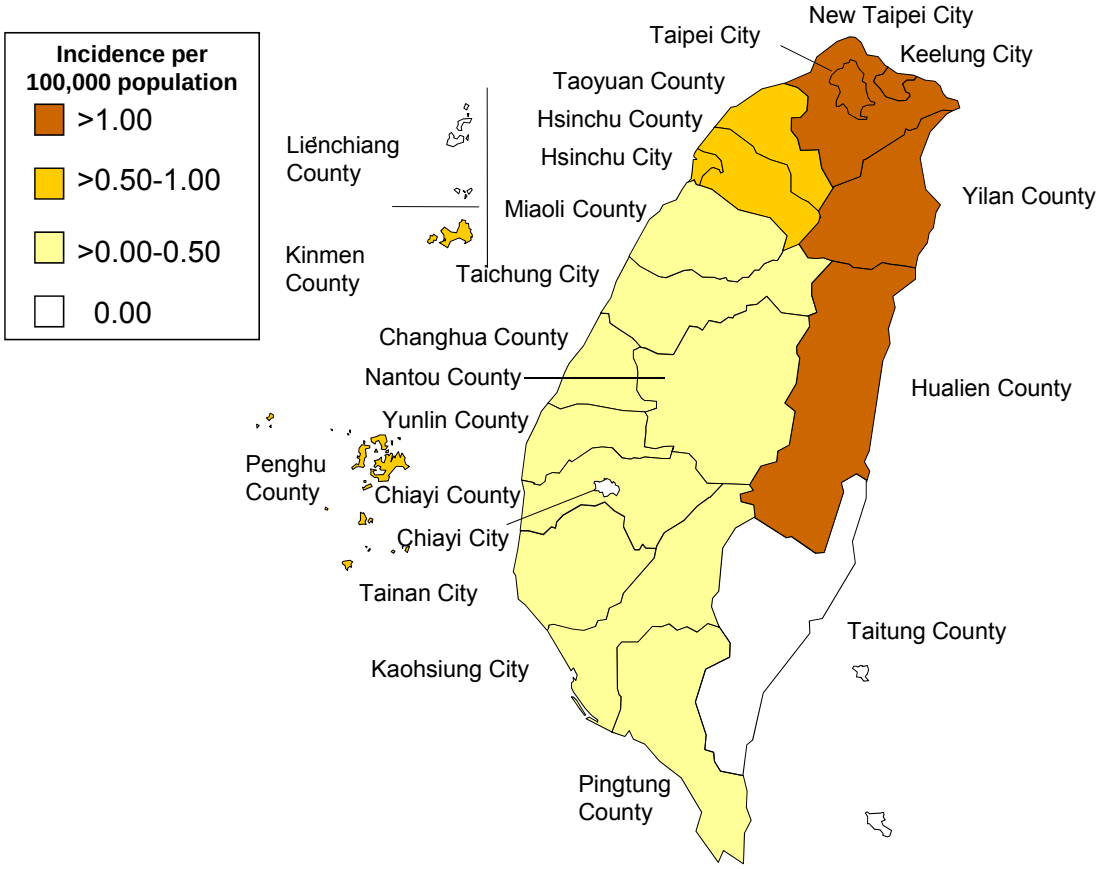


Figure 66 Geographical distribution by incidence of confirmed Shigellosis cases, 2013

Complicated Influenza

In 2013, 965 confirmed cases of complicated influenza (incidence rate: 4.13 per 100,000 population) were reported, which declined as compared with 1,595 confirmed cases (incidence rate: 6.85 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 542 male cases (56.2%) and 423 female cases (43.8%) with male to female ratio of 1.3:1.0.

(2) By age group

There were 366 cases in 65 years and over age group, 346 cases in 40-64 years age group, 131 cases in 25-39 years age group, 44 cases in 5-14 years age group, 42 cases in 15-24 years age group, 27 cases in 1-4 years age group, and 9 cases in 0-1 year age group.

(3) By month

The confirmed cases were concentrated in March through June with more than 100 cases reported in each of the months. April had the highest number of incidents with 173 cases reported, followed by May with 157 cases, March with 128 cases, June with 124 cases, December with 86 cases, February with 74 cases, July with 54 cases, August with 41 cases, January with 39 cases, September with 33 cases, November with 31 cases, and October with 25 cases.

(4) By residential region

All cities and counties had confirmed cases of complicated influenza in 2013, except for Kinmen County and Lienchiang County. New Taipei City had the highest number of incidents with 287 confirmed cases, followed by Taipei City with 159 cases, Kaohsiung City with 99 cases, Tainan City with 75 cases, Changhua County with 62 cases, Taoyuan County with 52 cases, Nantou County with 38 cases, and Taichung City with 30 cases. The other cities and counties all had less than 30 cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taitung County (11.97), followed by Nantou County (7.33), and New Taipei City (7.27).

(5) Imported cases and countries of infection

There were 6 imported cases of complicated influenza in 2013, including 2 cases from Egypt, and 1 case each from China, Japan, Malaysia and Peru.

(6) By virus type

By virus type, there were 948 cases associated with influenza virus Type A (including 553 cases of H3, 387 cases of H1N1, 7 cases untyped, and 1 case of simultaneous infection with AH3 and H1N1), and 17 cases associated with influenza virus Type B.

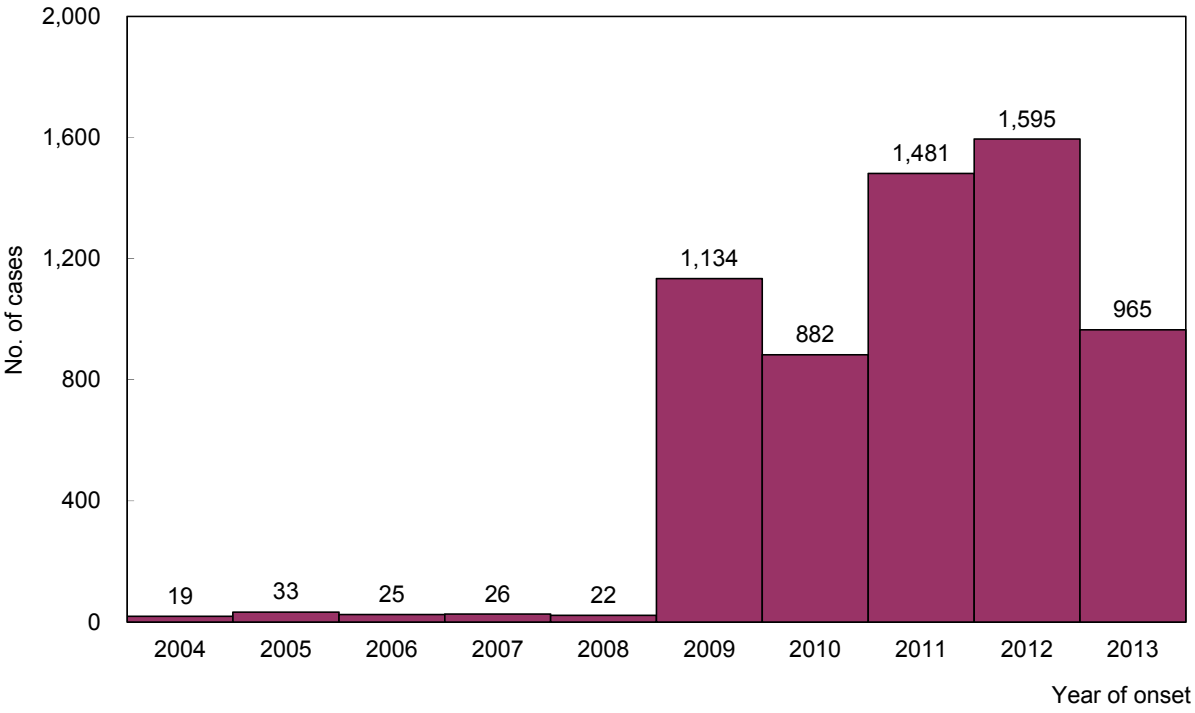


Figure 67 Number of confirmed Complicated Influenza cases, 2004-2013

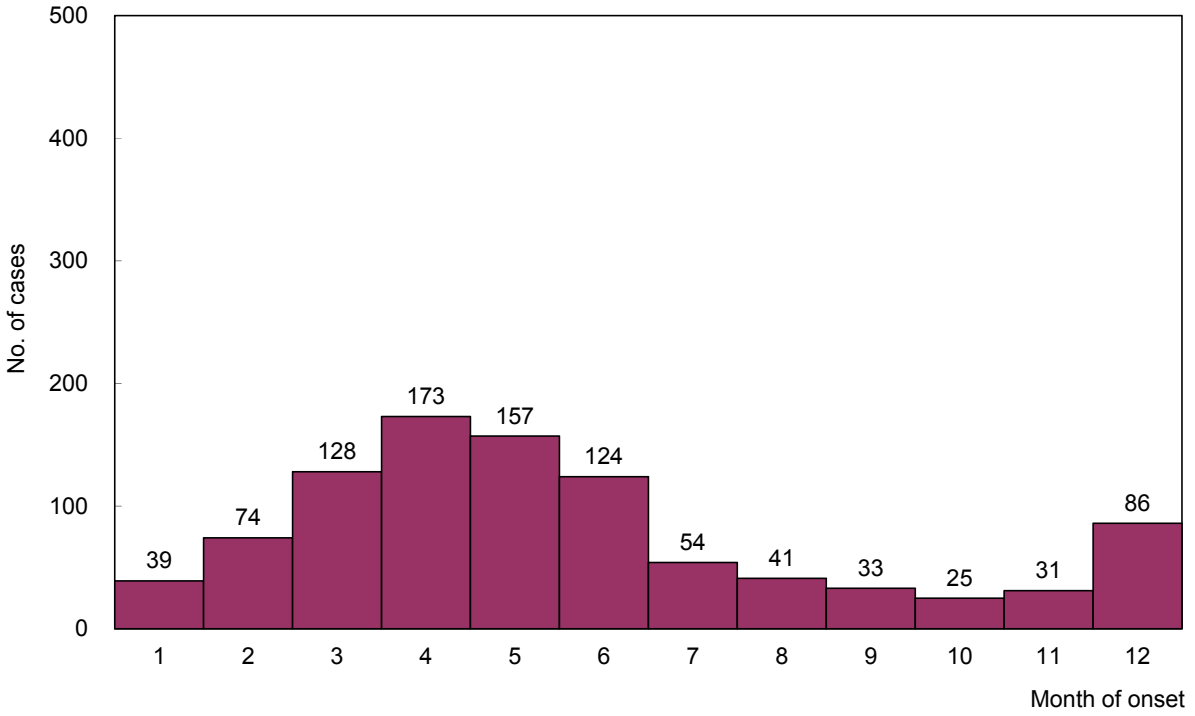


Figure 68 Number of confirmed Complicated Influenza cases, 2013

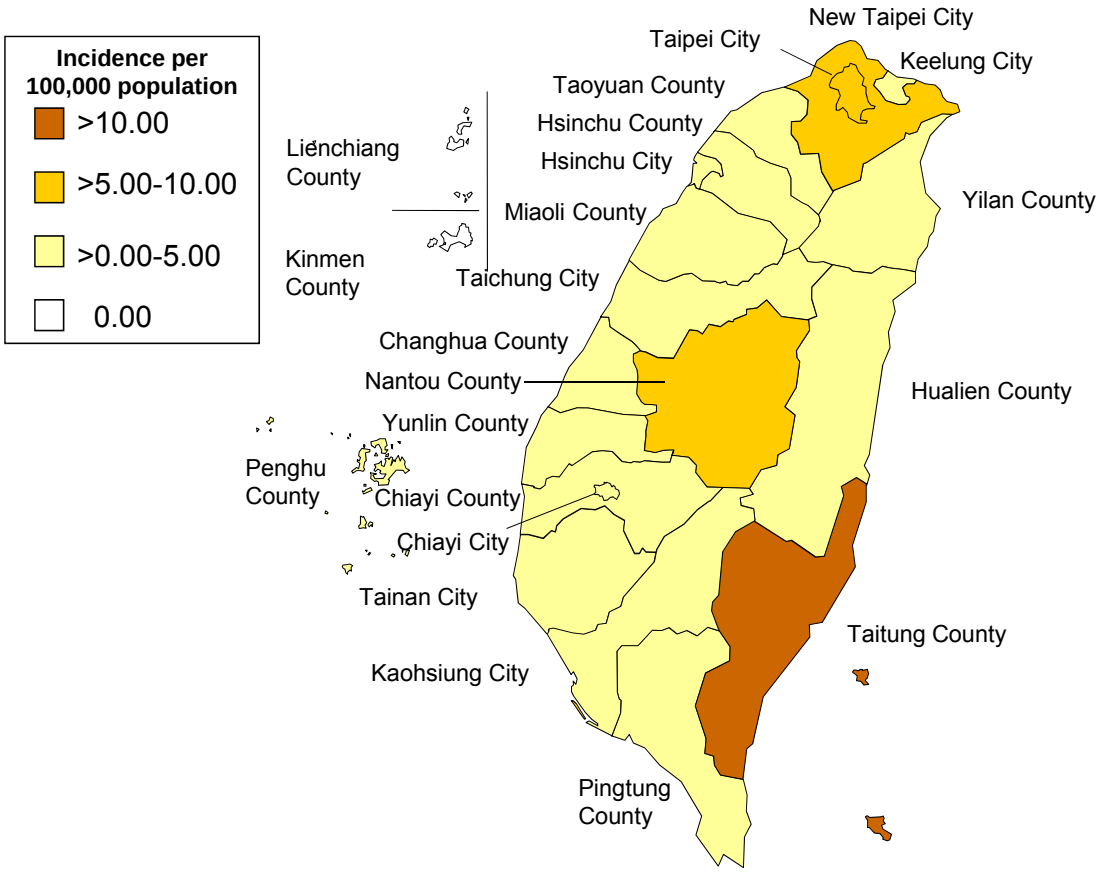


Figure 69 Geographical distributions by incidence of confirmed Complicated Influenza cases, 2013

Government-funded influenza vaccination coverage rate

In the government-funded influenza vaccination program for influenza season 2012-2013, as recommended by the Advisory Committee on Immunization Practices (ACIP), trivalent inactivated influenza vaccines (TIV) were used in six high-risk groups, including the elders aged more than 65 years, children aged six months through six years and elementary school students from grade one through six, 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. The influenza vaccine uptake rates obtained via the Influenza Vaccine Information System (IVIS) from October 1, 2012 to September 30, 2013, were described below:

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

The coverage rates for each group were as follows: the elders aged more than 65 years: 1,074,433 people /41.6%; pre-school children aged above six months with at least one dose: 334,903 people /30.0%; elementary school students from grade one through six: 976,319 people /71.1%; staff in nursing homes and other long-term
care facilities: 26,849 people /76.7%; people with catastrophic illness: 43,749 people; healthcare workers: 248,382 people /92.6%; public health personnel: 24,292 people /71.7%; poultry or livestock farmers and animal health inspectors: 16,023 people /73.1%.

(2) Usage by months (See Figures 70 and 71 for more details)

Most of the recipients received the vaccines during the period of October 1 to November 30. Up to 93.6% of 0.5mL influenza vaccines were administered by end of November after the government-funded vaccines became available. The vaccine use rate then increased slowly after November, and by end of December, the vaccine use rate was 96.1%. By the end of January 2013, a total of 97.8% of the vaccines had been administered. After end of February 2013, the percentage of vaccines administered was kept at 98.4%.

As for 0.25mL influenza vaccines, the percentage of the vaccines administered reached 61.4% by end of November since the vaccines became available. The percentage then increased slowly, and reached 79.7% by end of December. At the end of January 2013, 88.8% of the vaccines had been administered, and after end of February 2013, the percentage was kept at 93.8%.

Table 28 Government-funded influenza vaccination coverage rates by high-risk groups, 2012-2013

High-risk groups	No. of Vaccinee	Coverage rates
Elders aged more than 65 years	1,074,433	41.6%
Pre-school children aged above six months with at least one dose	334,903	30.0%
Elementary school students	976,319	71.1%
People with catastrophic illness	43,748	-
Staff in nursing homes and other long-term care facilities	26,849	76.7%
Healthcare workers	248,382	92.6%
Registered medical professionals	171,059	95.3%
General staff in healthcare facilities	77,323	87.2%
Public health personnel	24,292	71.1%
Infection control workers	11,485	90.4%
Emergency medical technicians	5,744	65.6%
Airborne service corps	101	36.7%
Coast guards	6,063	72.3%
Border control workers	899	22.3%
Animal farm-related workers	16,023	73.1%
Poultry or livestock farmers	14,502	74.6%
Animal health inspectors	1,521	61.5%

(3) Coverage by cities/counties (See Table 29 for more details)

The overall average coverage rate was 51.47%. The coverage rates were highest in Eastern Taiwan and Northern Taiwan for 56.61% and 56.59%, respectively, followed by 55.11% in Central Taiwan. The coverage rate in Chiayi City was 57.5%, which was the highest among all cities and counties. The cities and counties where the coverage rates were higher than the overall coverage rate included Tainan City, Taichung City, Hsinchu City, Taitung County, Chiayi County, Nantou County, Yilan County, Lienchiang County, Hualien County, Changhua County and Taoyuan County. In addition, the coverage rates in Miaoli County, Pingtung County and Yunlin County were higher than 50%. The cities and counties with coverage rates between 45% and 49% included Kaohsiung City, New Taipei City, Keelung City and Hsinchu County The coverage rates in Taipei City, Penhu County and Kinmen County were 43.80%, 42.63% and 31.71%, respectively.

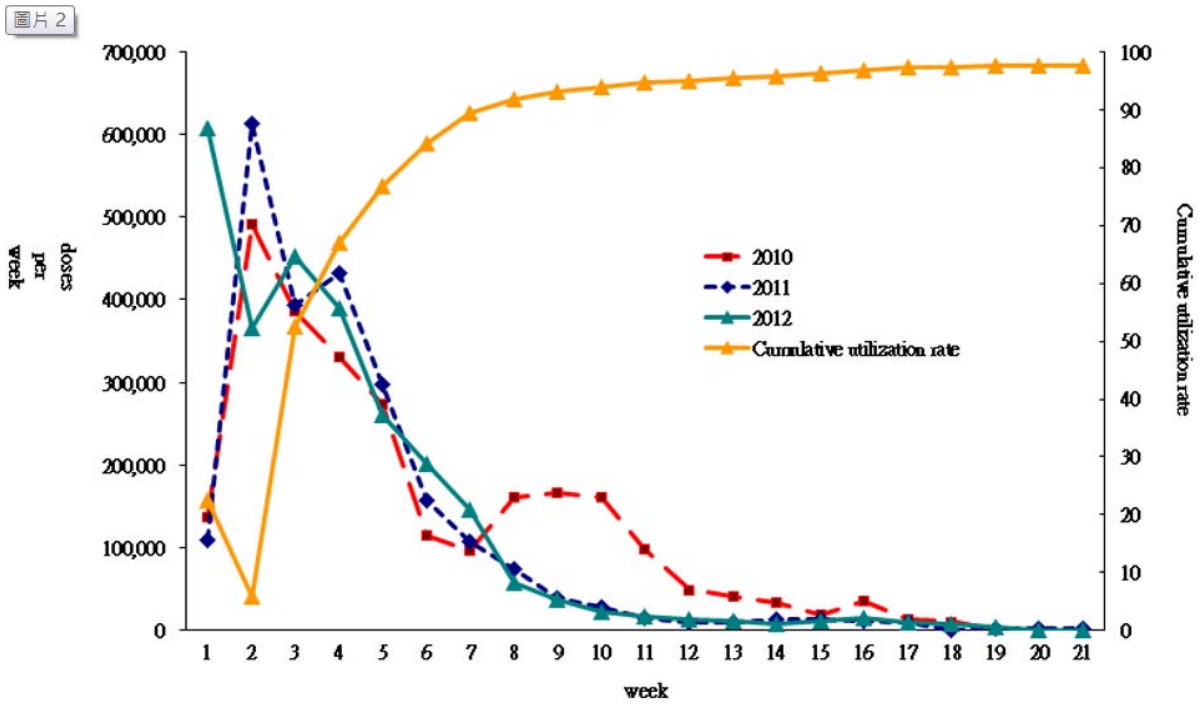


Figure 70 Immunization progress with 0.5ml influenza vaccine shots

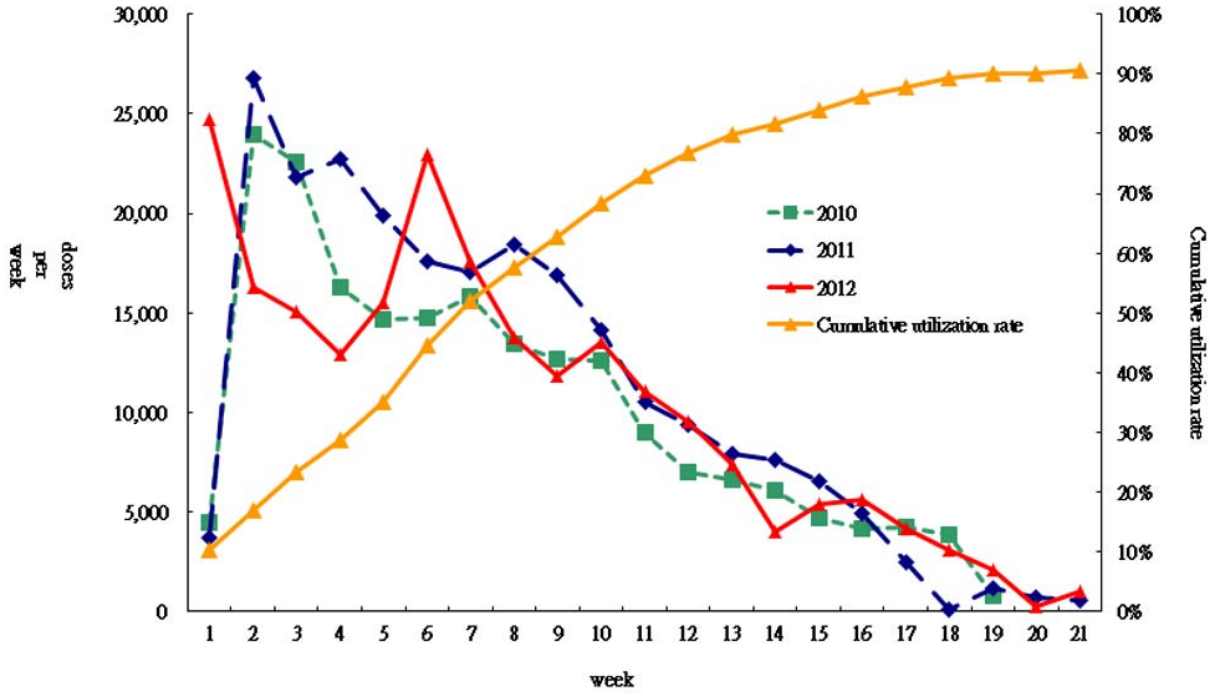


Figure 71 Immunization progress with 0.25ml influenza vaccine shots

Table 29 Government-funded influenza vaccination coverage rates by cities/counties, 2012-2013

Locality	Target population	Vaccinated population	Coverage rate
Taipei City	663,684	290,685	43.80%
Kaohsiung City	614,417	291,557	47.45%
Keelung City	84,444	41,277	48.88%
Hsinchu City	106,163	56,286	53.02%
Taichung City	588,671	310,927	52.82%
Tainan City	434,231	225,369	51.90%
Chiayi City	67,425	41,861	62.09%
New Taipei City	791,380	385,440	48.70%
Taoyuan County	450,737	276,968	61.45%
Hsinchu County	134,366	67,050	49.90%
Yilan County	115,447	65,983	57.15%
Miaoli County	143,622	72,187	50.26%
Changhua County	323,831	190,702	58.89%
Nantou County	131,694	73,801	56.04%
Yunlin County	194,441	99,010	50.92%
Chiayi County	143,695	80,125	55.76%
Pingtung County	208,034	104,670	50.31%
Penghu County	26,336	11,226	42.63%
Hualien County	86,177	50,685	58.81%
Taitung County	58,518	31,228	53.36%
Kinmen County	24,449	7,752	31.71%
Lienchiang County	2,867	1,667	58.14%
Total	5,394,629	2776,456	51.47%

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

2. The coverage rates were calculated by reports from the cities and counties.
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 calculated.
4. Patients with catastrophic illness were not calculated because the target population could not be estimated by cities/counties.

Syphilis

In 2013, 6,346 confirmed cases of syphilis (incidence rate: 27.18 per 100,000 population) were reported, which increased as compared with 5,896 confirmed cases (incidence rate: 25.34 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 4,939 male cases (77.8%) and 1,407 female cases (22.2%) with male to female ratio of 3.5:1.0.

(2) By age group

The cases occurred mostly in 25-39 years age groups with 2,260 cases (35.6%) reported, followed by 40-64 years age group with 1,802 cases (28.4%), 65 years and over age group with 1,396 cases (22.0%), 15-24 years age group with 863 cases (13.6%), 0-1 year age group with 23 cases (0.4%), and 5-14 years age group with 2 cases (<0.1%).

(3) By month (based on diagnosis date)

There were no specific prevalent months or seasons for syphilis in 2013 and there were confirmed cases reported in each month of the year.

(4) By residential region

New Taipei City had the highest number of incidents with 1,309 cases (20.6%) reported, followed by Taipei City with 930 cases (14.7%), Taoyuan County with 822 cases (13.0%), Kaohsiung City with 753 cases (11.9%), Taichung City with 692 cases (10.9%), Tainan City with 312 cases (4.9%), Pingtung County with 231 cases (3.6%), Changhua County with 187 cases (2.9%), Yilan County with 170 cases (2.7%), Yunlin County with 143 cases (2.3%), Hualien County with 120 cases (1.9%), and Keelung City with 108 cases (1.7%).The rest of cities and counties all had less than 100 confirmed cases reported. Lienchiang County had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taoyuan County (40.35), followed by Yilan County (37.08), Hualien County (35.87), Taipei City (34.70), and New Taipei City (33.16). The incidence rates of confirmed cases per 100,000 population of the other cities and counties were below 30.00.

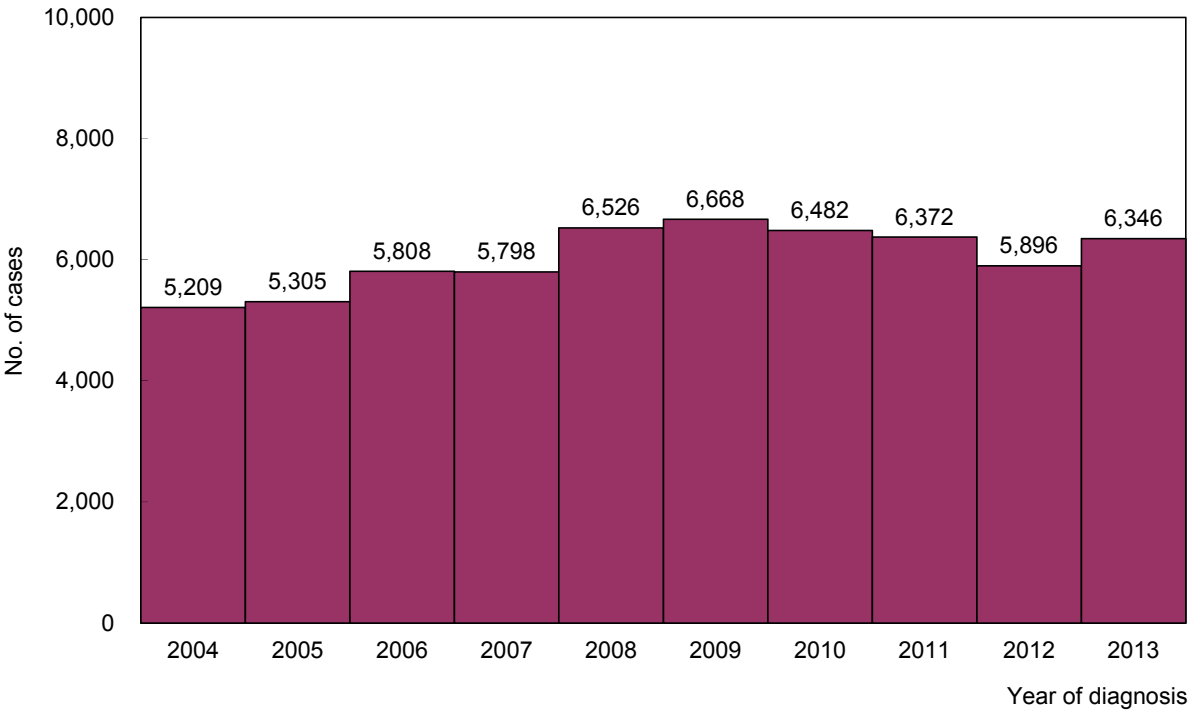


Figure 72 Number of confirmed Syphilis cases, 2004-2013

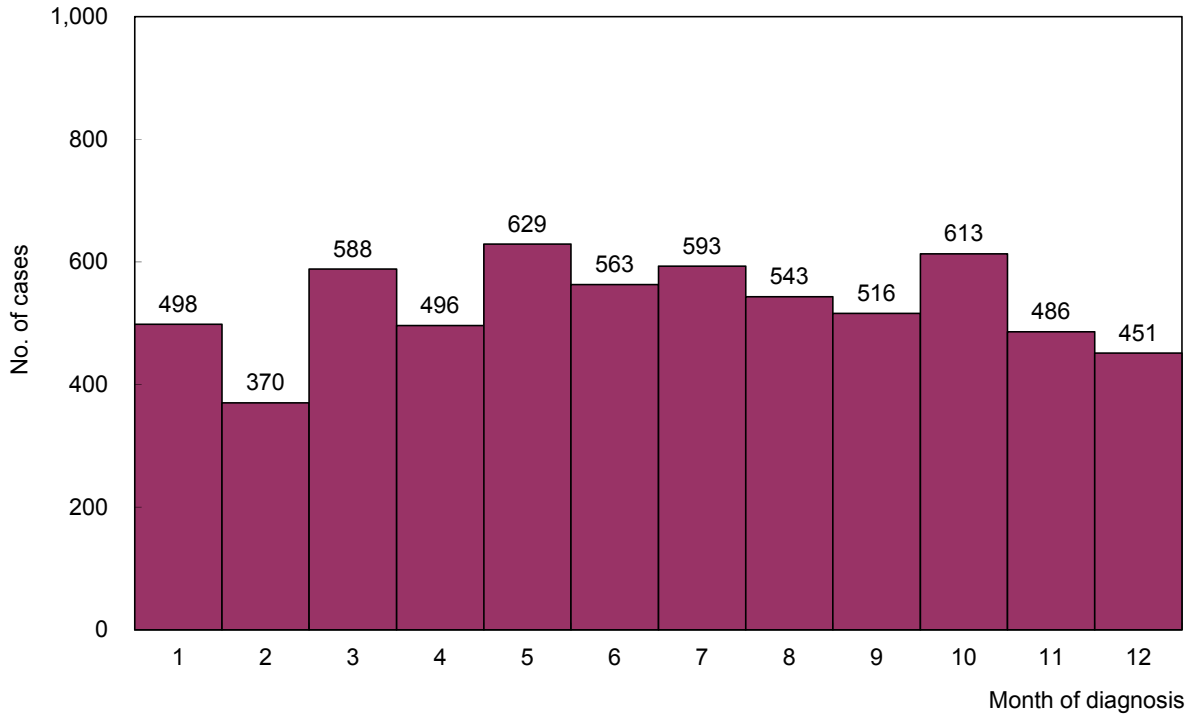


Figure 73 Number of confirmed Syphilis cases, 2013

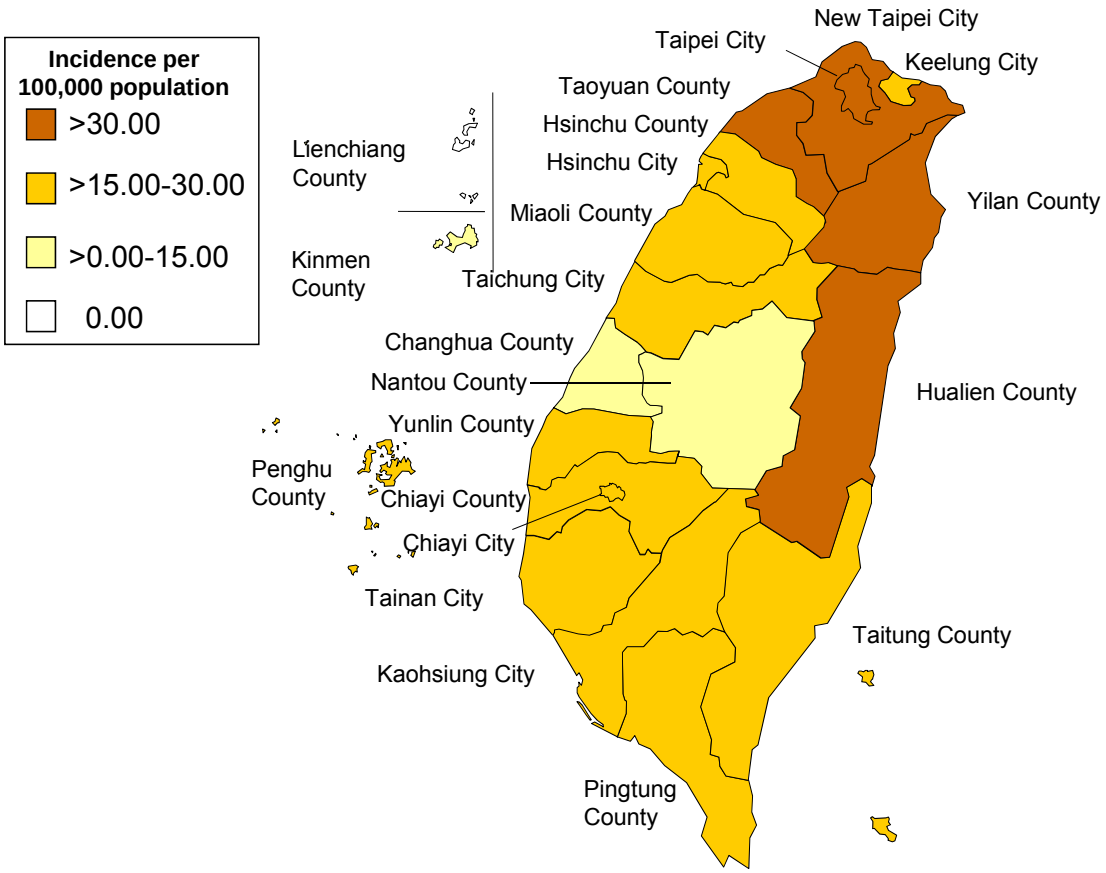


Figure 74 Geographical distribution by incidence of confirmed Syphilis cases, 2013

Gonorrhea

In 2013, 2,155 confirmed cases of gonorrhea (incidence rate: 9.23 per 100,000 population) were reported, which increased as compared with 1,983 confirmed cases (incidence rate: 8.52 per 100,000 population) in 2012. The data of confirmed cases in 2013 are analyzed as follows:

(1) By gender

There were 2,003 male cases (92.9%) and 152 female cases (7.1%) with male to female ratio of 13.2:1.0.

(2) By age group

The cases occurred mostly in 25-39 years age groups with 1,094 cases (50.8%) reported, followed by 15-24 years age group with 757 cases (35.1%), 40-64 years age group with 279 cases (12.9%), 65 years and over age group with 19 cases (0.9%), and 5-14 years age group with 6 cases (0.3%).

(3) By month (based on diagnosis date)

There were no specific prevalent months or seasons for gonorrhea in 2013, and there were confirmed cases reported in each month of the year.

(4) By residential region

New Taipei City had the highest number of incidents with 620 cases (28.8%) reported, followed by Taipei City with 499 cases (23.2%), Taoyuan County with 230 cases (10.7%), Kaohsiung City with 145 cases (6.7%), Taichung City with 131 cases (6.1%), Tainan City with 105 cases (4.9%), Hualien County with 46 cases (2.1%), Hsinchu County with 45 cases (2.1%), Keelung City, Miaoli County and Changhua County each with 42 cases (1.9%), Hsinchu City and Pingtung County with 34 cases each (1.6%), and Chiayi County with 30 cases (1.4%). The other cities and counties had less than 30 confirmed cases reported. Kinmen County and Lienchiang County had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Taipei City (18.62), followed by New Taipei City (15.71), Hualien County (13.75), Taoyuan County (11.29), and Keelung City (11.17). The incidence rates of confirmed cases per 100,000 population of the other cities and counties were below 10.00.

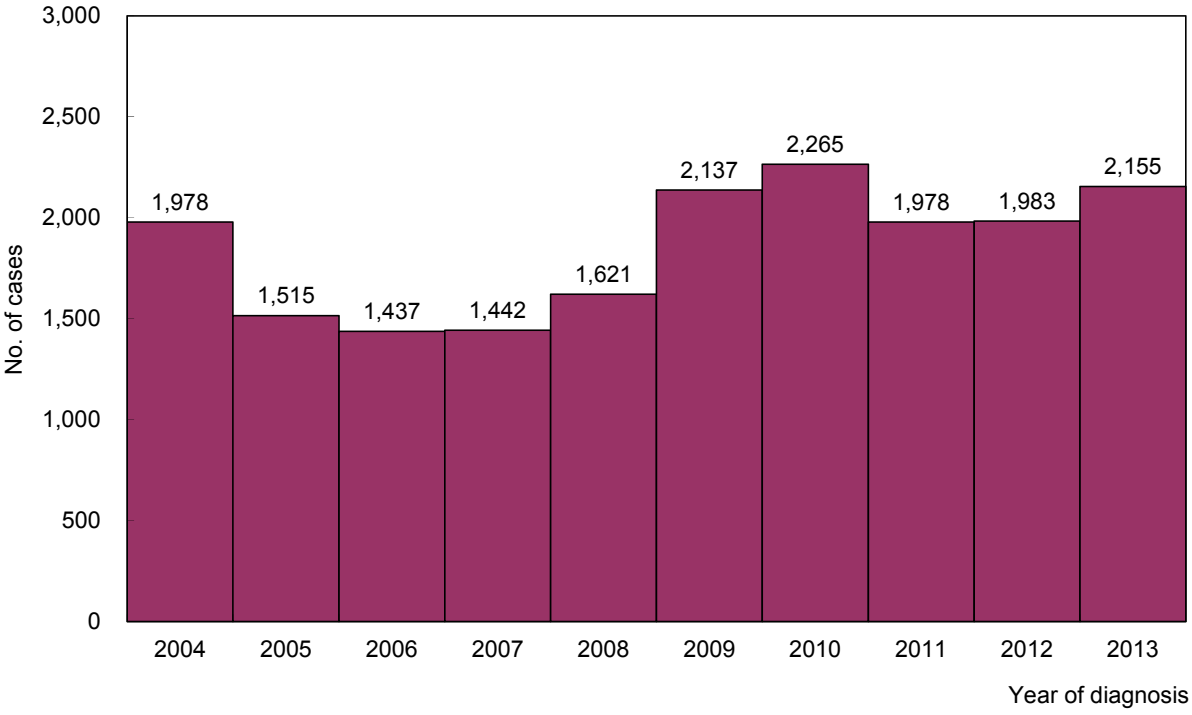


Figure 75 Number of confirmed Gonorrhea cases, 2004-2013

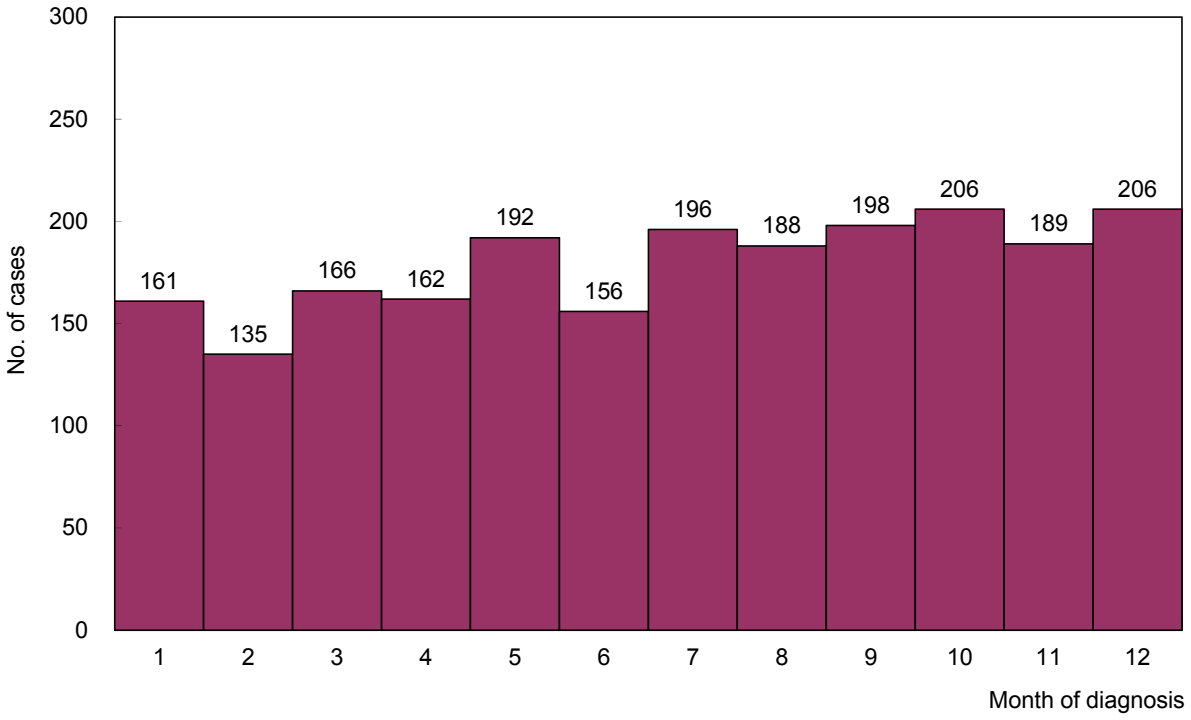


Figure 76 Number of confirmed Gonorrhea cases, 2013

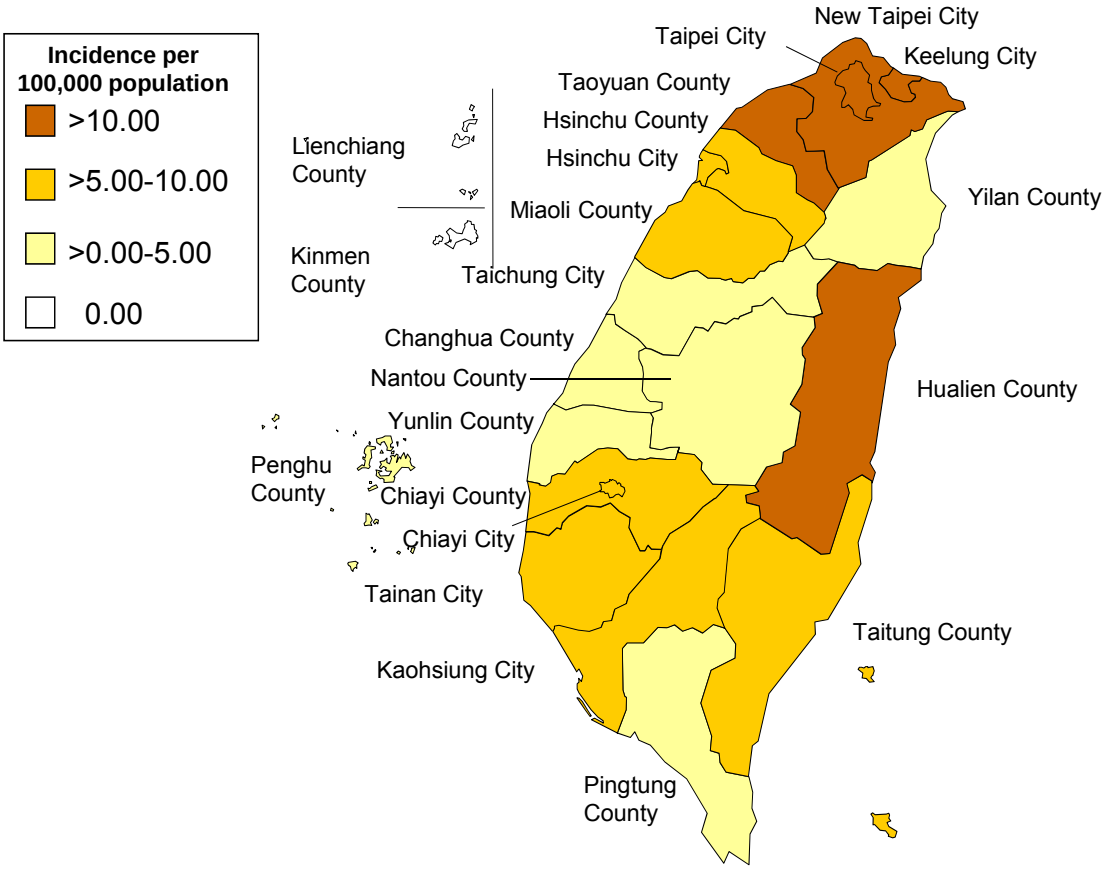


Figure 77 Geographical distribution by incidence of confirmed Gonorrhea cases, 2013

HIV Infection & AIDS

From 1984 up to the end of 2013, there were 27,366 cases of human immunodeficiency virus (HIV) infection (26,476 native cases and 890 foreign cases) and 11,290 acquired immunodeficiency syndrome (AIDS) cases (11,176 native cases and 114 foreign cases) were reported.

In 2013, 2,292 HIV cases (2,244 native cases and 48 foreign cases) and 1,439 AIDS cases (1,430 native cases and 9 foreign cases) were diagnosed and reported. The data of native cases in 2013 are analyzed as follows (the HIV infection cases include AIDS cases):

(1) By gender

HIV: There were 2,192 male cases (97.7%) and 52 female cases (2.3%) with male to female ratio of 42.2:1.0.

AIDS: There were 1,355 male cases (94.8%) and 75 female cases (5.2%) with male to female ratio of 18.1:1.0.

(2) By age group

HIV: There were 1,282 cases (57.1%) in 25-39 years age group, 588 cases (26.2%) in 15-24 years age group, and 353 cases (15.7%) in 40-64 years age group.

AIDS: There were 834 cases (58.3%) in 25-39 years age group, 402 cases (28.1%) in 40-64 years age group, and 172 cases (12.0%) in 15-24 years age group.

(3) By month (based on diagnosis date)

There were no specific prevalent months or seasons for HIV infection and AIDS in 2013 and there were confirmed cases reported in each month of the year.

(4) By risk factors

HIV (total): There were 1,830 cases (81.6%) caused by male homosexual acts, 285 cases (12.7%) caused by heterosexual acts, 46 cases (2.0%) caused by injection drug use, 1 case (0.04%) caused by blood transfusion, and 82 cases (3.7%) with unknown causes.

HIV (male): There were 1,830 cases (83.5%) caused by male homosexual acts, 245 cases (11.2%) caused by heterosexual acts, 40 cases (1.8%) caused by injection drug use, and 77 cases (3.5%) with unknown causes.

HIV (female): The cases were mostly caused by heterosexual acts with 40 cases (76.9%), followed by injection drug use with 6 cases (11.5%) and blood transfusion with 1 case (1.9%). There were also 5 female cases (9.6%) with unknown causes.

AIDS (total): There were 919 cases (64.3%) involving homosexuals, 237 cases (16.6%) involving drug users, 231 cases (16.2%) involving heterosexuals, 1 case (0.1%) involving hemophilia patient, and 1 case (0.1%) involving blood transfusion recipients. There were also 41 cases (2.9%) with unknown causes.

AIDS (male): There were 919 cases (67.8%) involving homosexuals, 204 cases (15.1%) involving heterosexuals, 194 cases (14.3%) involving drug users, 1 case (0.1%) involving hemophilia patient, and 37 cases (2.7%) with unknown causes.

AIDS (female): There were 43 cases (57.3%) involving drug users, 27 cases (36.0%) involving heterosexuals, 1 case (1.3%) involving blood transfusion recipient, and 4 cases (5.3%) with unknown causes.

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

(5) By residential region

HIV: New Taipei City had the highest number of incidents with 527 cases (23.5%) reported, followed by Taipei City with 401 cases (17.9%), Kaohsiung City with 308 cases (13.7%), Taichung City with 280 cases (12.5%), and Taoyuan County with 186 cases (8.3%). Kinmen County and Lienchiang County did not have HIV infection cases reported in 2013.

The incidence rate of confirmed HIV cases per 100,000 population was the highest in Taipei City (14.96), followed by New Taipei City (13.35), and Hsinchu City (12.18).

AIDS: New Taipei City had the highest number of incidents with 302 cases (21.1%) reported, followed by Kaohsiung City with 224 cases (15.7%), Taipei City with 199 cases (13.9%), Taichung City with 143 cases (10.0%), and Taoyuan County with 131 cases (9.2%). Lienchiang County did not have AIDS cases reported in 2013.

The incidence rate of confirmed AIDS cases per 100,000 population was the highest in Kaohsiung City (8.06), followed by New Taipei City (7.65) and Taipei City (7.43).

Table 30 Risk factors for male HIV and AIDS cases (foreigner excluded), 2013

Risk factor	HIV	%	AIDS	%
Men who have sex with men	1,830	83.5%	919	1,830
Heterosexuals	245	11.2%	204	245
Injecting drug users	40	1.8%	194	40
Blood recipients	0	0.0%	0	0
Vertical transmission	0	0.0%	0	0
Hemophiliacs	0	0.0%	1	0
Unknown	77	3.5%	37	77
Total	2,192	100.0%	1355	2,192

Table 31 Risk factors for female HIV and AIDS cases (foreigner excluded), 2013

Risk factor	HIV	%	AIDS	%
Heterosexuals	40	76.9%	27	36.0%
Injecting drug users	6	11.5%	43	57.3%
Blood recipients	1	1.9%	1	1.3%
Vertical transmission	0	0.0%	0	0.0%
Hemophiliacs	0	0.0%	0	0.0%
Unknown	5	9.6%	4	5.3%
Total	52	100.0%	75	100.0%

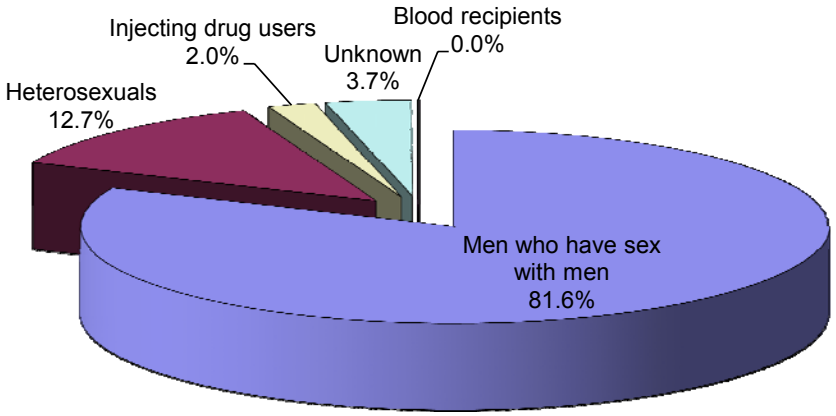


Figure 78 Risk factor of confirmed HIV infection cases (foreigner excluded), 2013

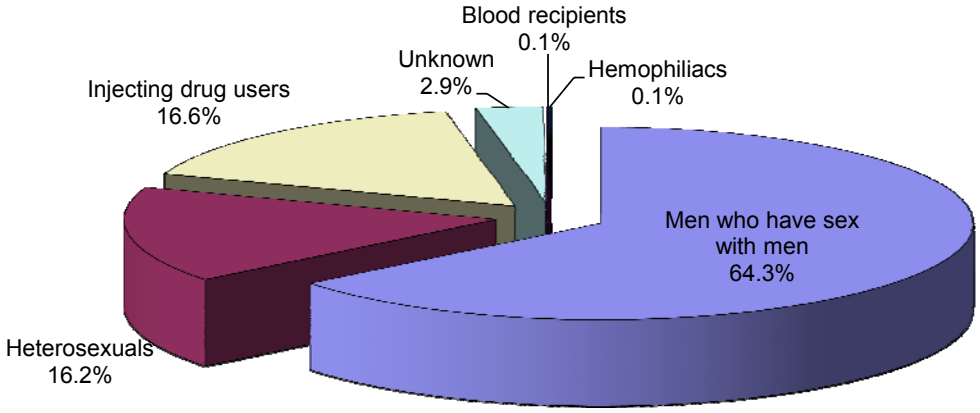


Figure 79 Risk factor of confirmed AIDS cases (foreigner excluded), 2013

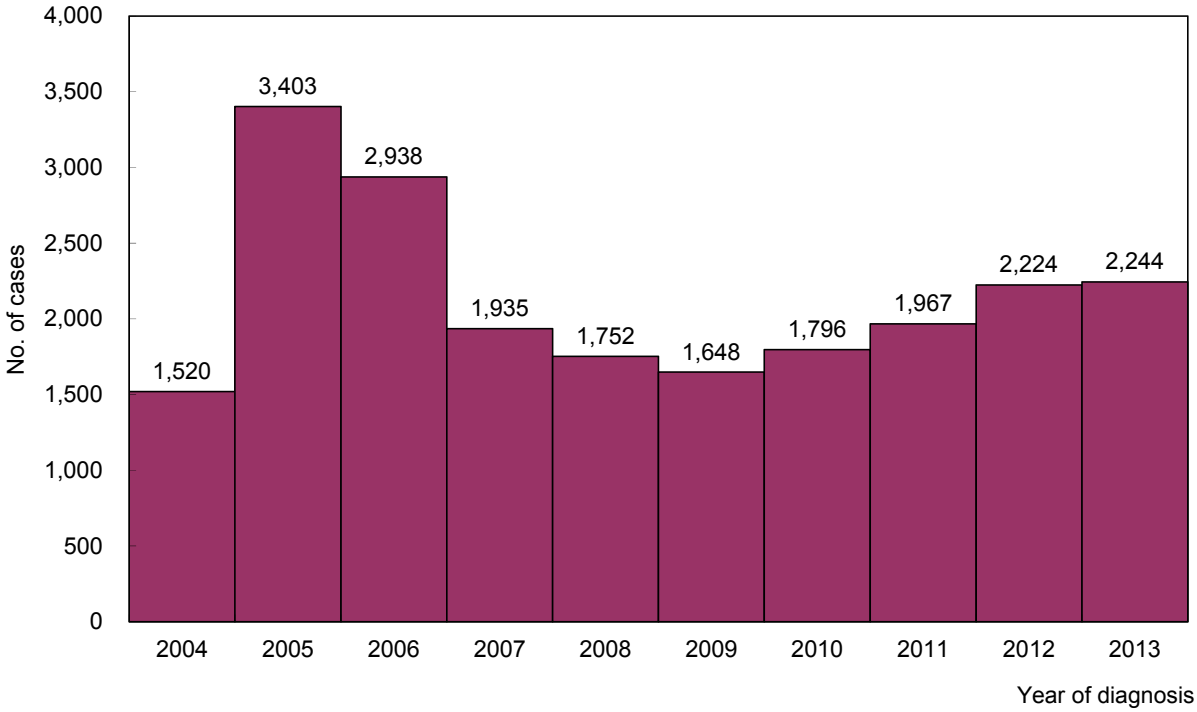


Figure 80 Number of confirmed HIV infection cases (foreigner excluded), 2004-2013

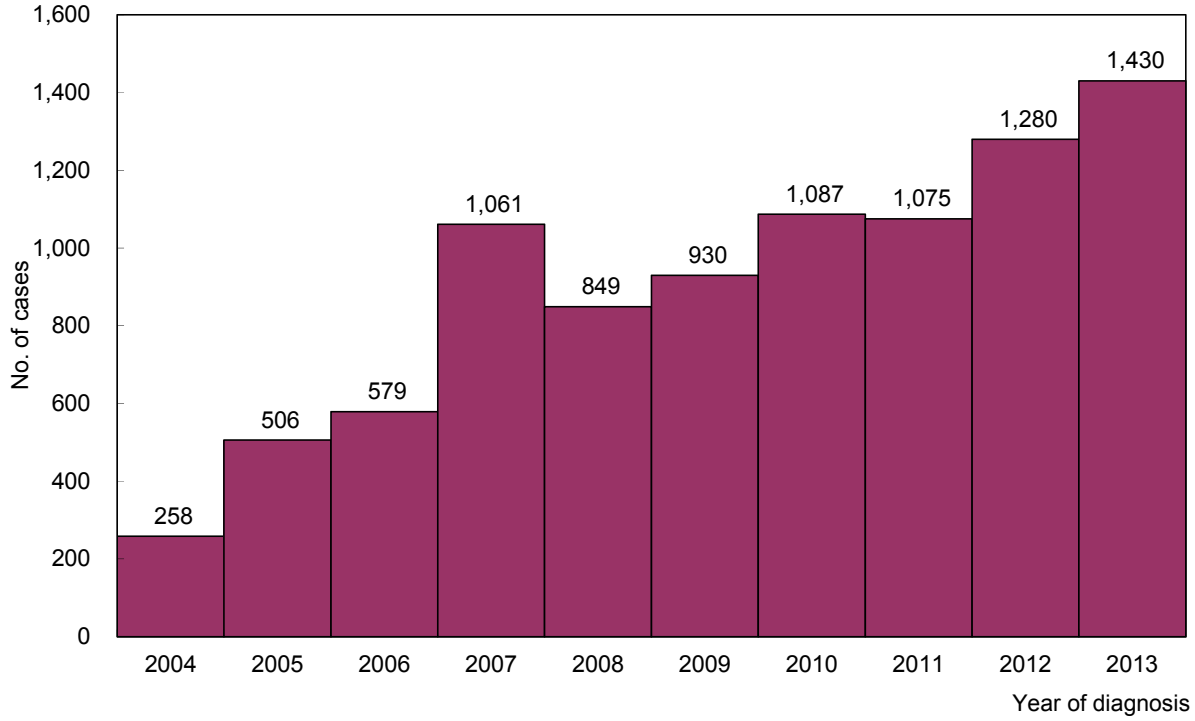


Figure 81 Number of confirmed AIDS cases (foreigner excluded), 2004-2013

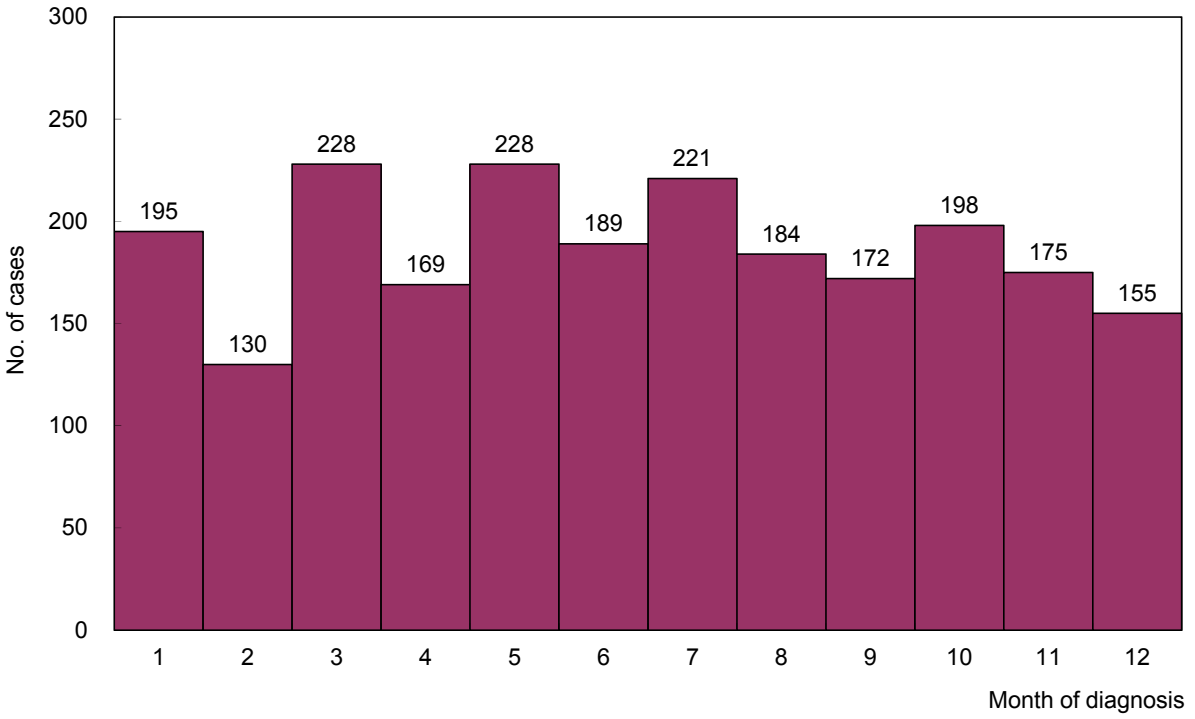


Figure 82 Number of confirmed HIV infection cases (foreigner excluded), 2013

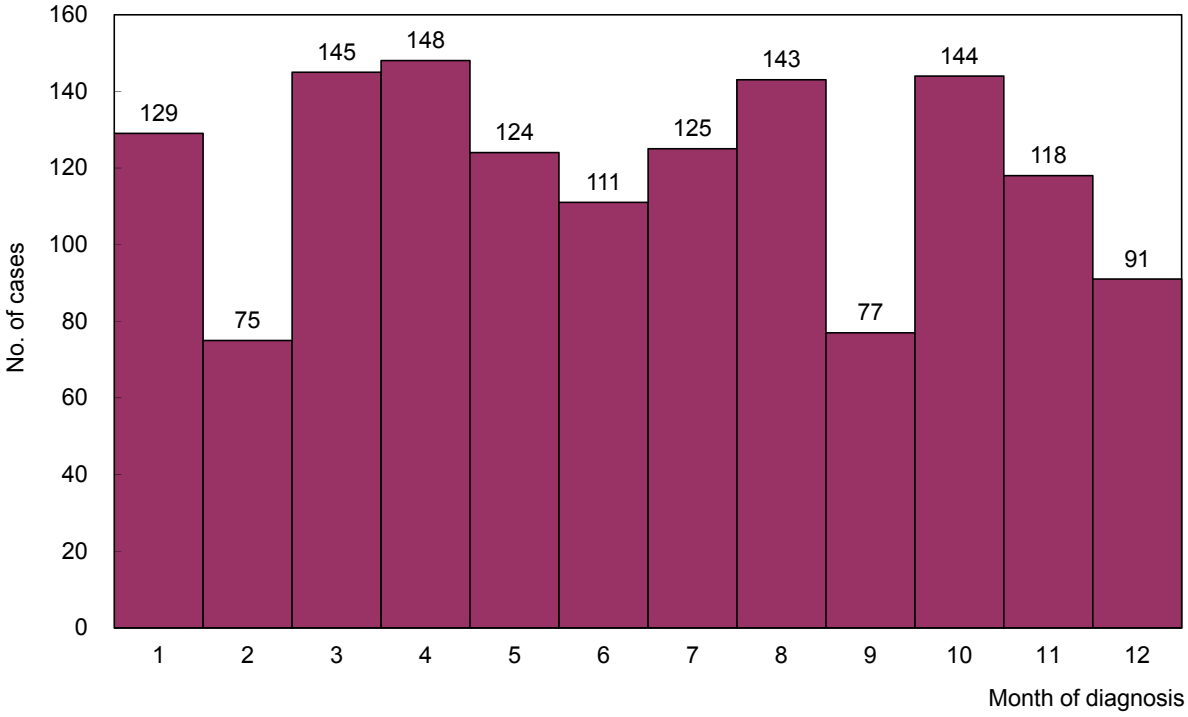


Figure 83 Number of confirmed AIDS cases (foreigner excluded) , 2013

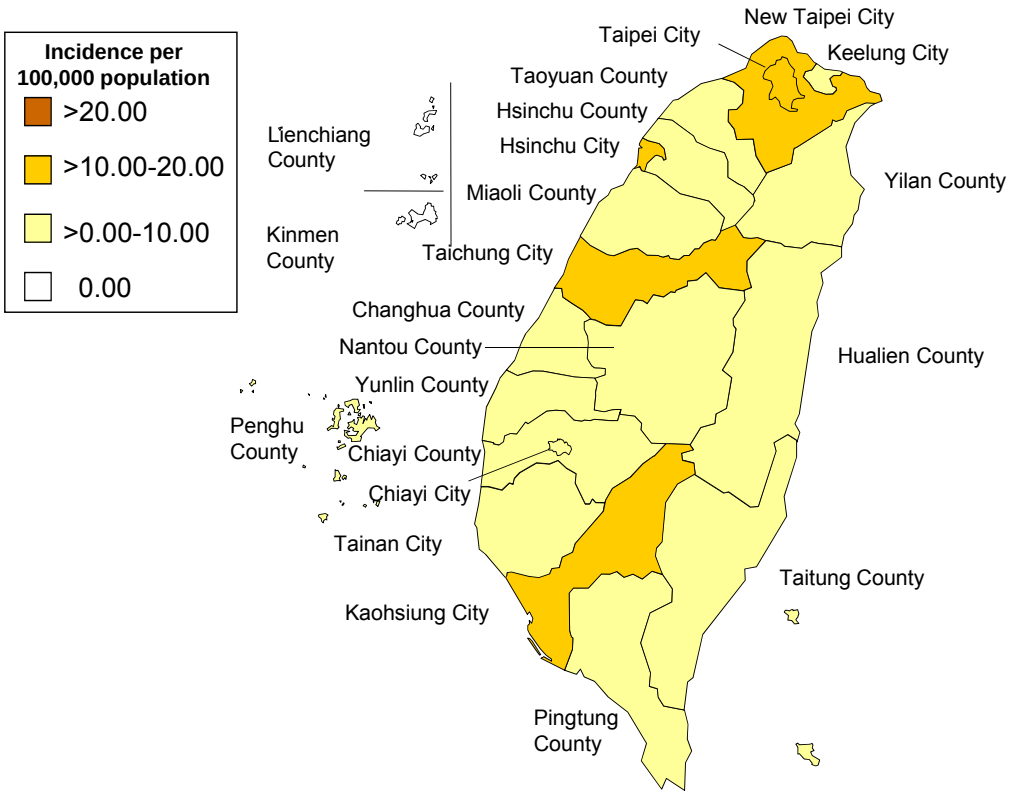


Figure 84 Geographical distribution by incidence of confirmed HIV infection cases (foreigner excluded), 2013

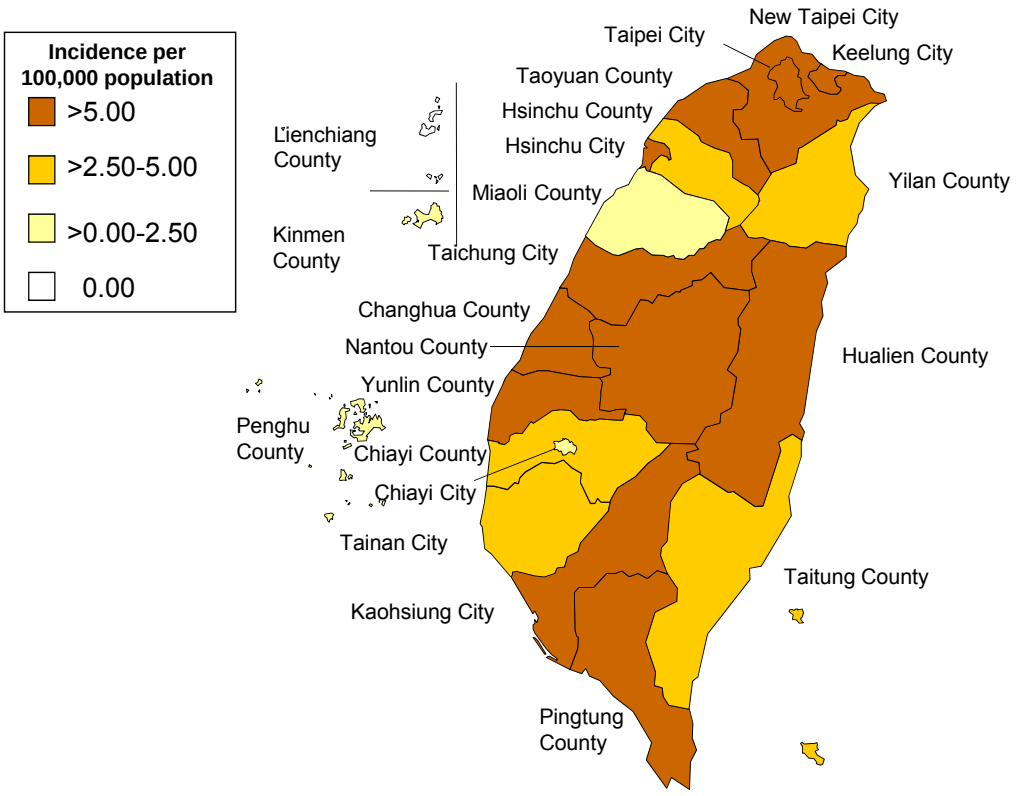


Figure 85 Geographical distribution by incidence of confirmed AIDS cases (foreigner excluded), 2013

Tuberculosis

In 2013, 11,528 cases of tuberculosis (incidence rate: 49.4 per 100,000 population) were confirmed, which went down in both case number and incidence rate with 6.6% and 6.8% declining respectively, as compared with 12,338 confirmed cases (incidence rate: 53.0 per 100,000 population) in 2012. The data of confirmed TB cases in 2013 were analyzed as follows:

(1) By gender

There were 8,071 male cases (70.0%) and 3,457 female cases (30.0%) with a male to female ratio of 2.3:1.0. The incidence rate of tuberculosis in males (69.1 per 100,000 population) was 2.3 times higher than that in females (29.6 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 2013, 67 were aged 0-14, 545 were aged 15-24, 675 were aged 25-34, 942 were aged 35-44, 1,412 were aged 45-54, 1,775 were aged 55-64, and 6,112 were elderly over 65 year-old which accounted for 53.0% of total.

(3) By month (based on notification date)

Tuberculosis cases were reported in each month of the year, with the highest notification (1,109 cases) in July and lowest (743 cases) in February.

(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 86.0 per 100,000 population, followed by Hualien County with 83.4 per 100,000 population. Lienchiang County and Kinmen County had the lowest incidence rate with 25.6 and 13.7 per 100,000 population respectively.

(5) Mortality distribution

In 2013, there were 609 tuberculosis deaths with a mortality rate of 2.6 per 100,000 population. Males accounted for 460 deaths (3.9 deaths per 100,000 population) and the rest of 149 were females (1.3 deaths per 100,000 population) with a male to female death ratio of 3.1:1.0.

The tuberculosis mortality rate in Taiwan increased with age. Of the 609 tuberculosis deaths in 2013, 84.6% (515 cases) were elderly aged 65 years and above.

For the overall geographic distribution, tuberculosis deaths in 2013 showed a pattern of higher in eastern and southern regions and lower in northern region. Pingtung County had the highest TB mortality rate (5.3 per 100,000 population), followed by Taitung County (4.4 per 100,000 population) and Hualien County (3.9 per 100,000 population).

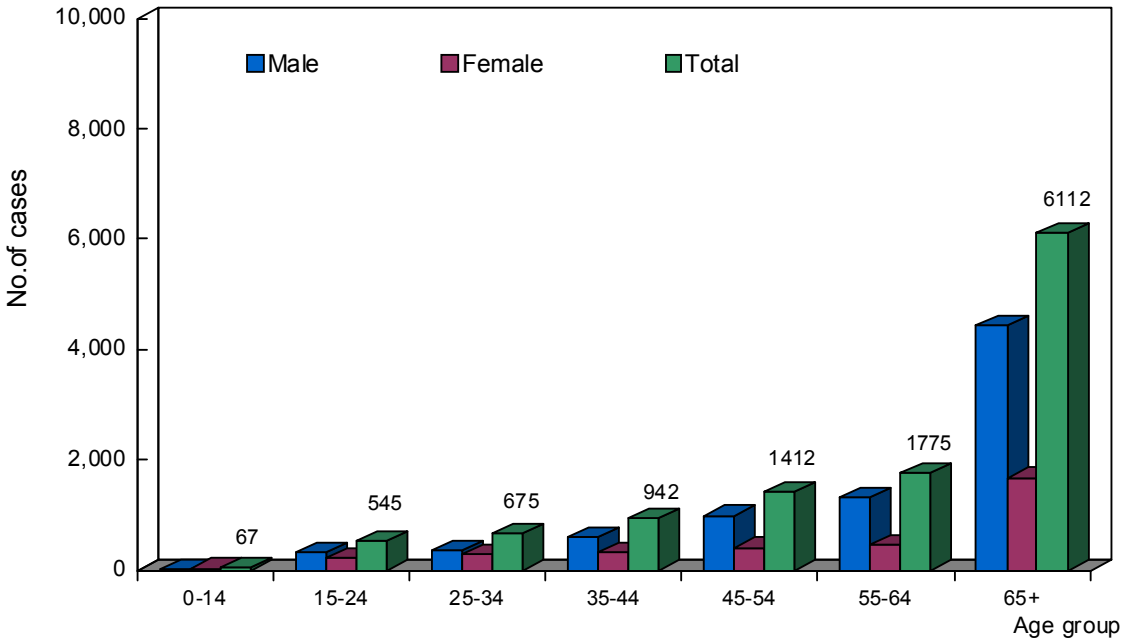


Figure 86 Tuberculosis cases number by age group and sex, 2013

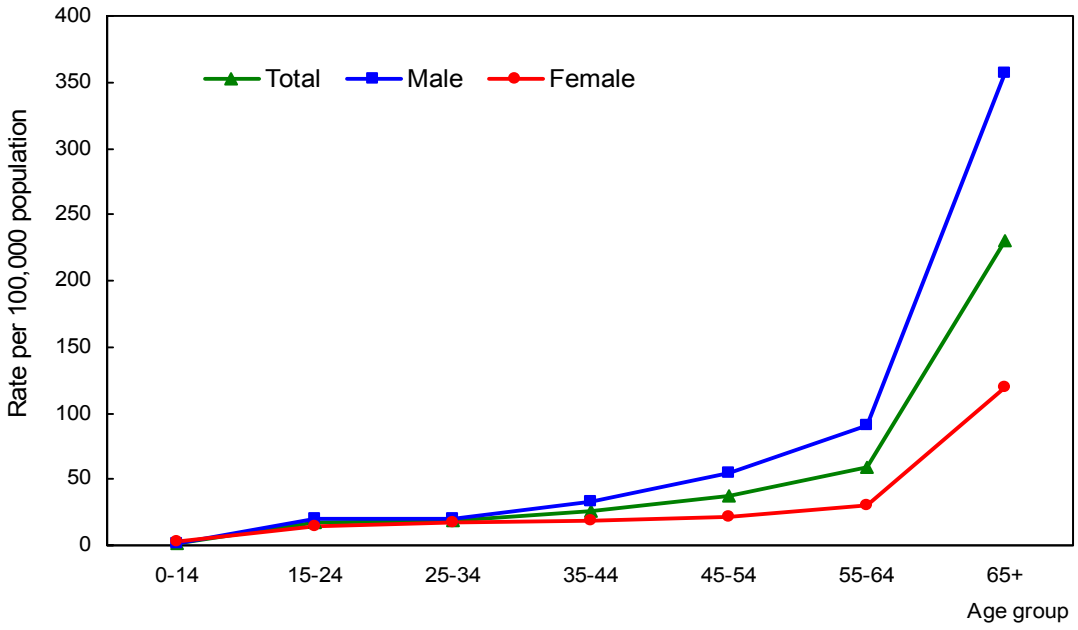


Figure 87 Incidence rate of Tuberculosis by age group and sex, 2013

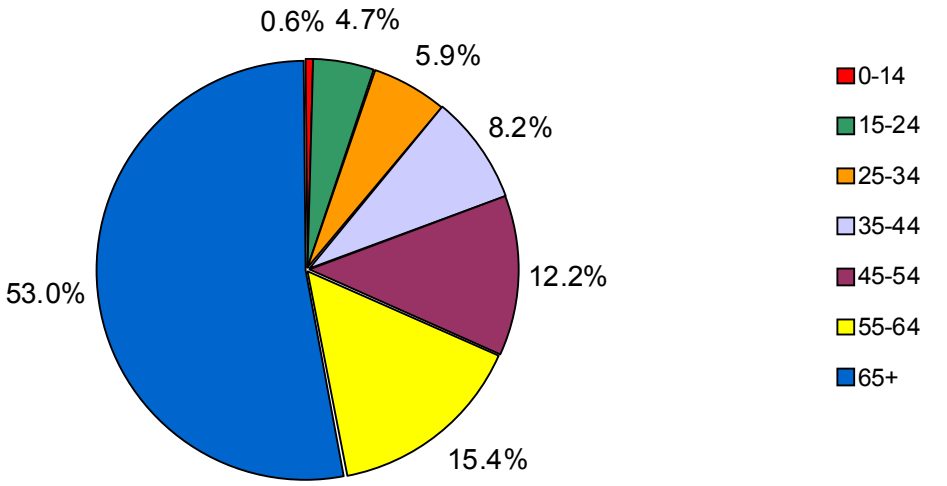


Figure 88 Distribution of Tuberculosis incidence by age group, 2013

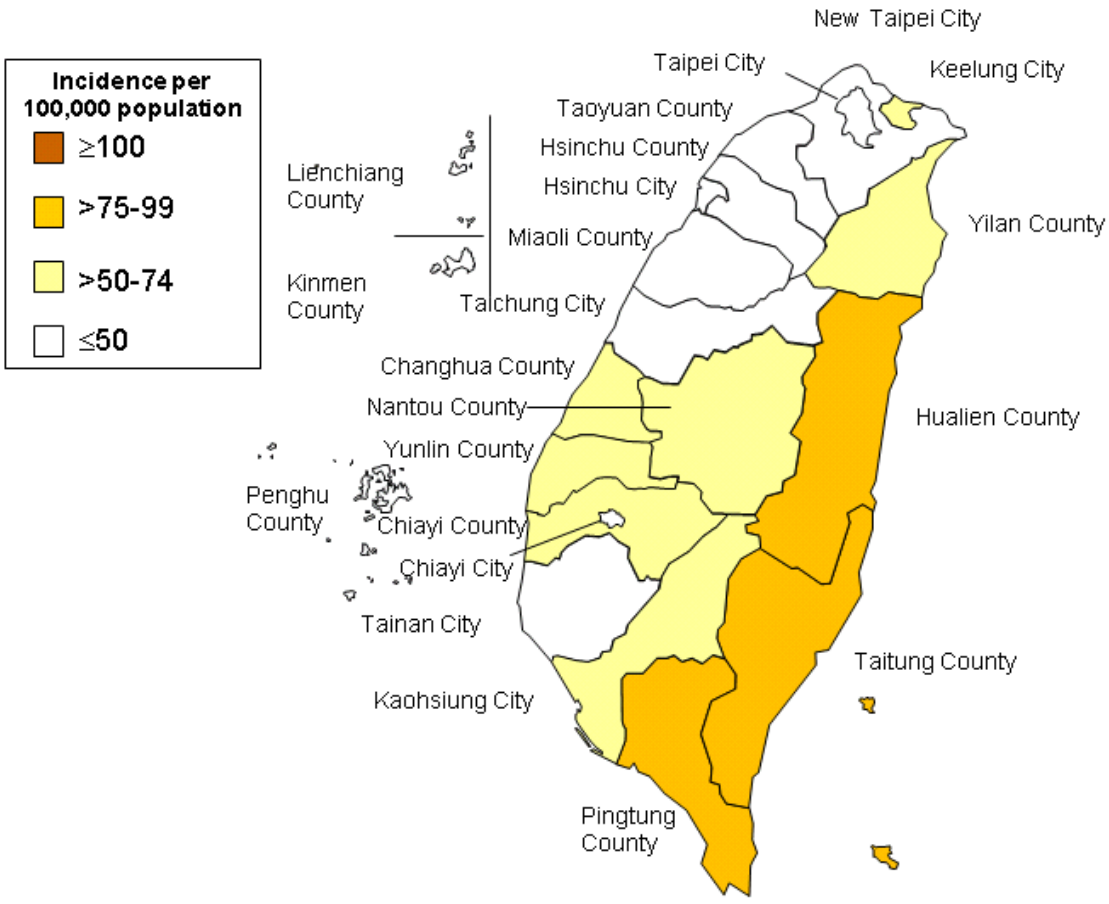


Figure 89 Geographical distribution by incidence of Tuberculosis cases, 2013

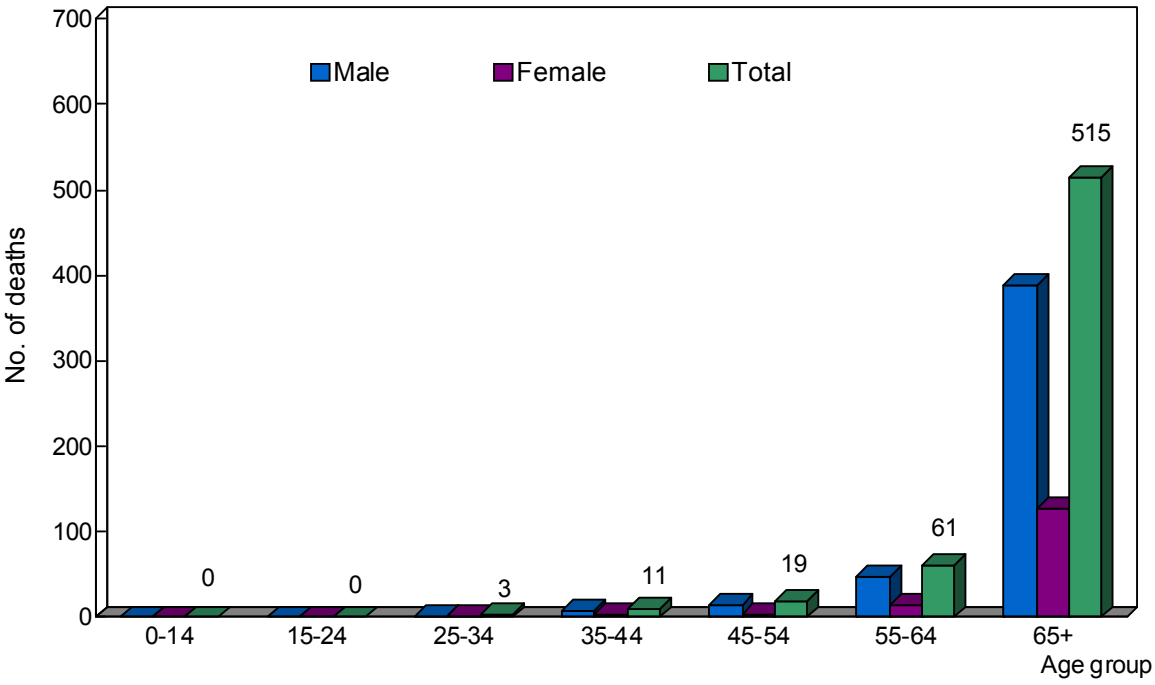


Figure 90 Mortality number of Tuberculosis by age group and sex, 2013

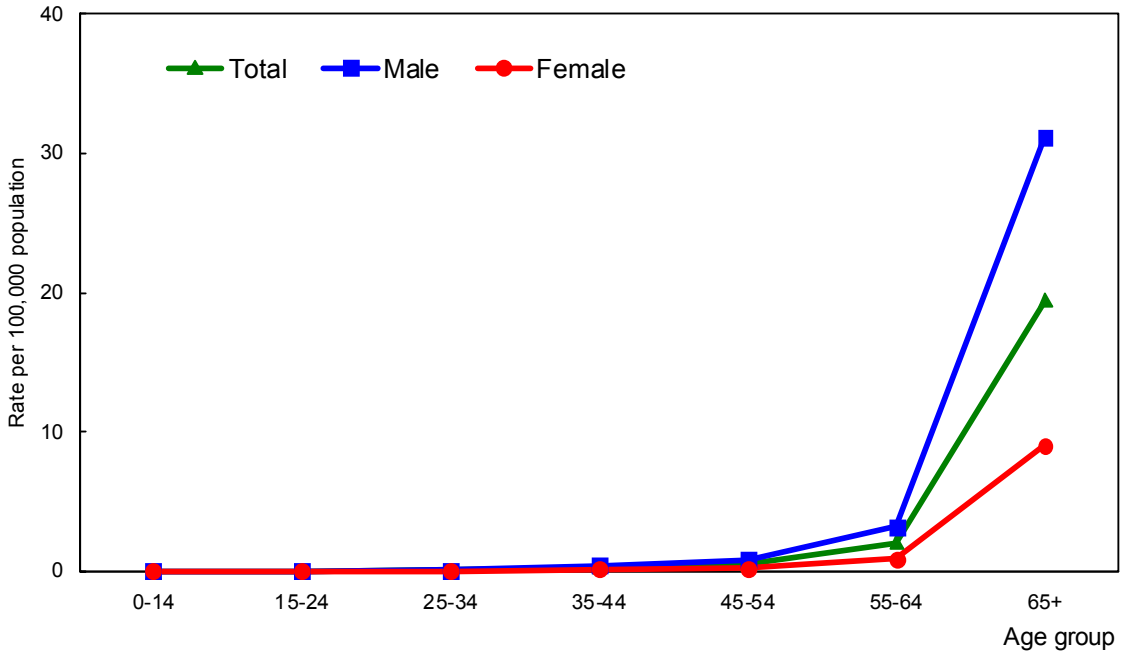


Figure 91 Mortality rate of Tuberculosis by age group and sex, 2013

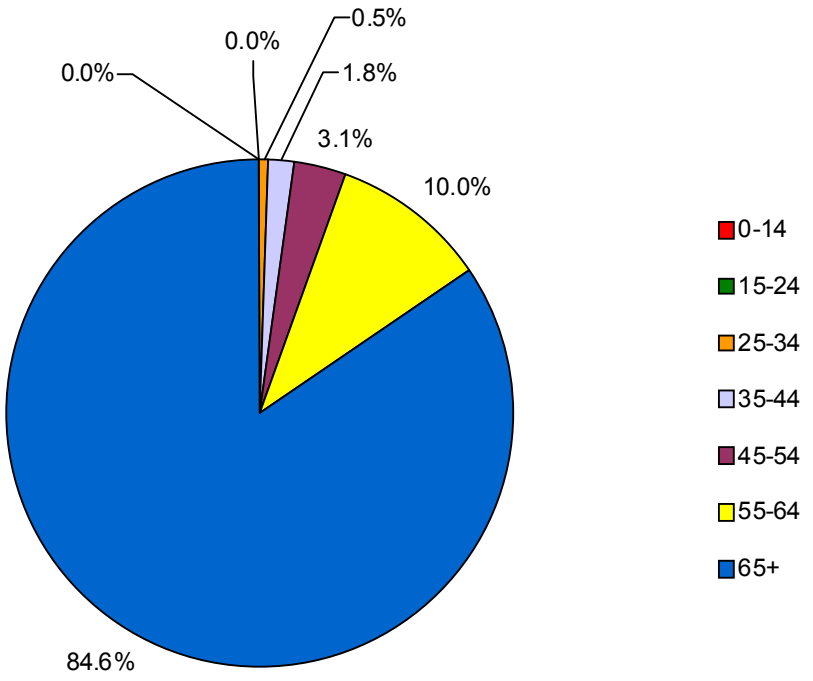


Figure 92 Distribution of Tuberculosis mortality by age group, 2013

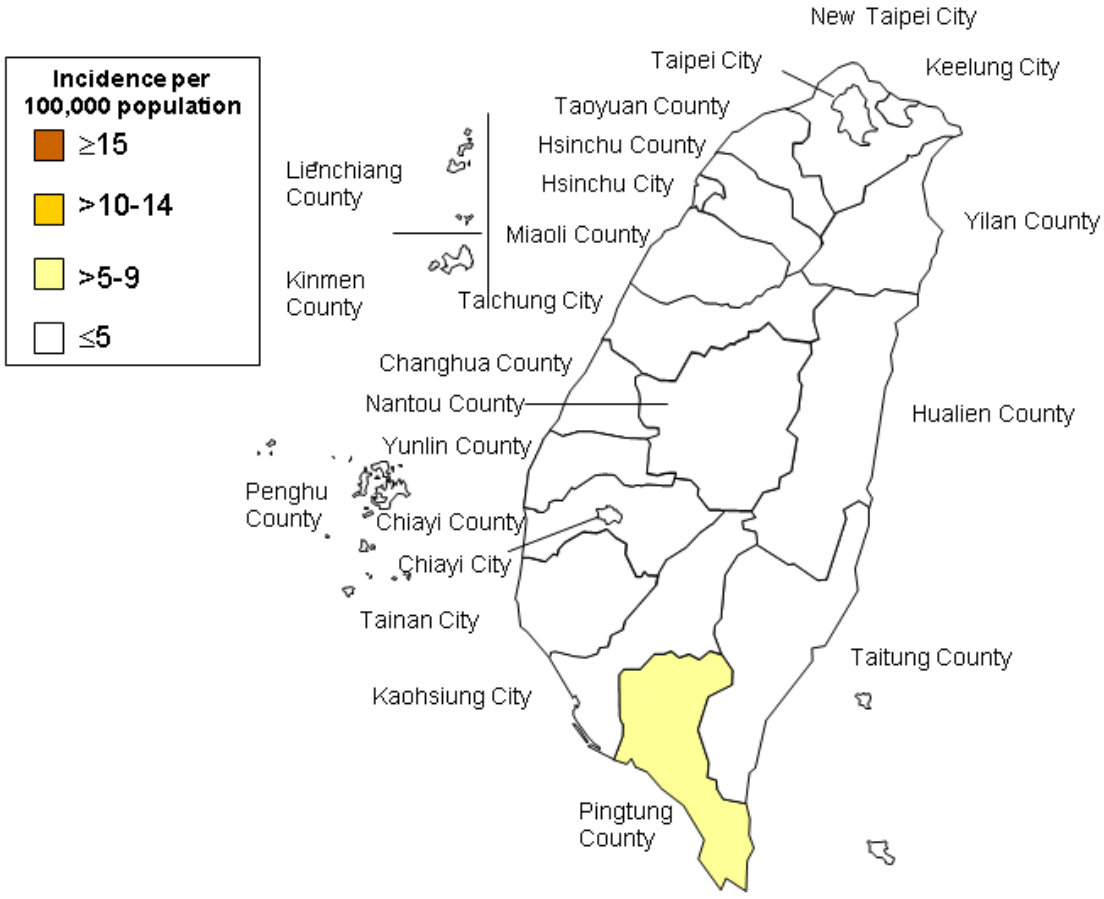


Figure 93 Geographical distribution by mortality of confirmed Tuberculosis cases, 2013

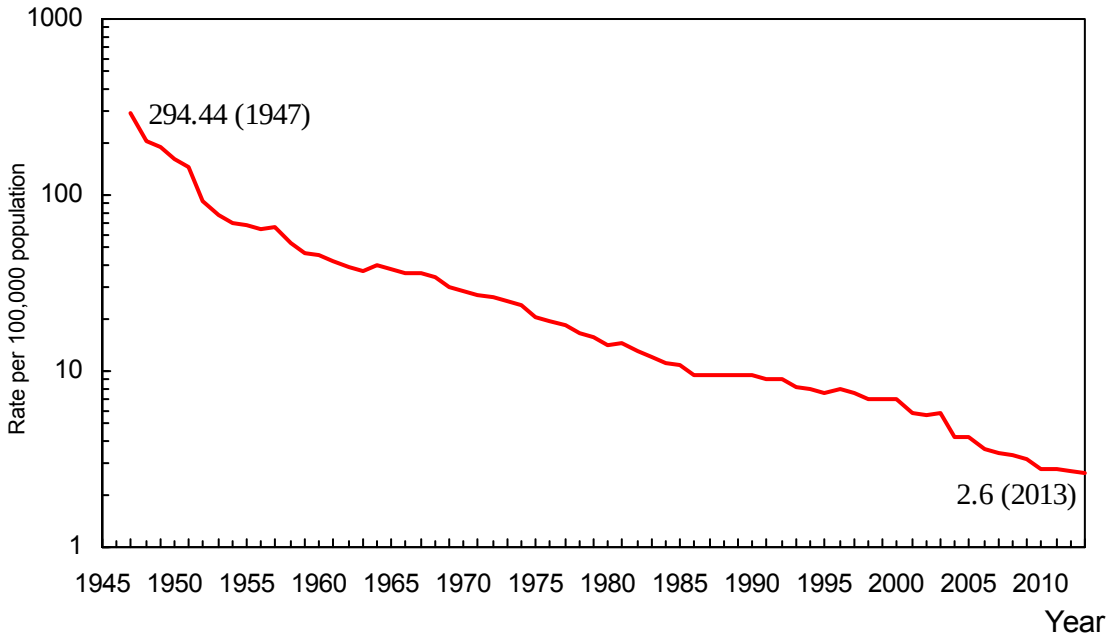


Figure 94 Trend of Tuberculosis mortality rate by year

Table 32 Mortality of Tuberculosis — by geographical distribution, 2013

Locality	Midyear population	Death number from TB	Per 100,000 population
Taiwan	**23,344,670**	**609**	**2.6**
New Taipei City	3,947,117	72	1.8
Yilan County	458,525	11	2.4
Taoyuan County	2,037,092	46	2.3
Hsinchu County	527,240	8	1.5
Miaoli County	564,765	9	1.6
Changhua County	1,297,940	32	2.5
Nantou County	518,709	20	3.9
Yunlin County	709,392	22	3.1
Chiayi County	531,476	20	3.8
Pingtung County	855,364	45	5.3
Taitung County	225,536	10	4.4
Hualien County	334,543	13	3.9
Penghu County	99,622	1	1.0
Keelung City	376,033	7	1.9
Hsinchu City	426,777	11	2.6
Taichung City	2,693,277	50	1.9
Chiayi City	271,046	7	2.6
Tainan City	1,882,427	55	2.9
Taipei City	2,679,871	67	2.5
Kaohsiung City	2,779,268	100	3.6
Kinmen County	116,912	3	2.6
Lienchiang County	11,738	-	0.0

Table 33 Mortality of Tuberculosis — by age & sex, 2013

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	23,344,670	609	2.6	11,678,997	460	3.9	11,665,673	149	1.3
0-4	985,317	-	-	511,886	-	-	473,431	-	-
5-9	1,054,123	-	-	551,264	-	-	502,859	-	-
10-14	1,339,698	-	-	699,161	-	-	640,537	-	-
15-19	1,586,239	-	-	824,092	-	-	762,147	-	-
20-24	1,608,561	-	-	836,768	-	-	771,793	-	-
25-29	1,669,463	1	0.1	849,899	-	-	819,564	1	0.1
30-34	2,026,589	2	0.1	1,009,568	2	0.2	1,017,021	-	-
35-39	1,899,235	5	0.3	940,446	3	0.3	958,789	2	0.2
40-44	1,826,439	6	0.3	906,430	5	0.6	920,009	1	0.1
45-49	1,865,633	7	0.4	930,250	5	0.5	935,383	2	0.2
50-54	1,850,963	12	0.6	918,009	10	1.1	932,954	2	0.2
55-59	1,655,997	32	1.9	812,726	25	3.1	843,271	7	0.8
60-64	1,329,134	29	2.2	645,684	22	3.4	683,450	7	1.0
65+	2,647,279	515	19.5	1,242,814	388	31.2	1,404,465	127	9.0

Table 34 Confirmed tuberculosis cases — by geographical distribution, 2013

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	4,592	6,936	11,528	23,344,670	49.4	3,328	4,743	8,071	11,678,997	69.1	1,264	2,193	3,457	11,665,673	29.6
New Taipei City	800	1,087	1,887	3,947,117	47.8	570	731	1,301	1,948,334	66.8	230	356	586	1,998,783	29.3
Yilan County	104	151	255	458,525	55.6	72	100	172	233,138	73.8	32	51	83	225,387	36.8
Taoyuan County	288	531	819	2,037,092	40.2	200	387	587	1,023,738	57.3	88	144	232	1,013,354	22.9
Hsinchu County	76	107	183	527,240	34.7	56	78	134	270,367	49.6	20	29	49	256,873	19.1
Miaoli County	75	103	178	564,765	31.5	61	71	132	291,811	45.2	14	32	46	272,954	16.9
Changhua County	287	417	704	1,297,940	54.2	201	276	477	664,697	71.8	86	141	227	633,243	35.8
Nantou County	138	194	332	518,709	64.0	103	133	236	266,387	88.6	35	61	96	252,322	38.0
Yunlin County	197	272	469	709,392	66.1	135	191	326	369,483	88.2	62	81	143	339,909	42.1
Chiayi County	128	169	297	531,476	55.9	100	121	221	276,952	79.8	28	48	76	254,524	29.9
Pingtung County	297	439	736	855,364	86.0	226	290	516	438,924	117.6	71	149	220	416,440	52.8
Taitung County	81	92	173	225,536	76.7	64	64	128	117,345	109.1	17	28	45	108,191	41.6
Hualien County	109	170	279	334,543	83.4	72	120	192	171,540	111.9	37	50	87	163,003	53.4
Penghu County	10	17	27	99,622	27.1	9	11	20	51,264	39.0	1	6	7	48,358	14.5
Keelung City	89	134	223	376,033	59.3	68	88	156	189,300	82.4	21	46	67	186,733	35.9
Hsinchu City	49	99	148	426,777	34.7	42	67	109	211,480	51.5	7	32	39	215,297	18.1
Taichung City	387	710	1,097	2,693,277	40.7	272	489	761	1,336,463	56.9	115	221	336	1,356,814	24.8
Chiayi City	63	71	134	271,046	49.4	50	54	104	132,868	78.3	13	17	30	138,178	21.7
Tainan City	341	559	900	1,882,427	47.8	250	400	650	944,780	68.8	91	159	250	937,647	26.7
Taipei City	348	547	895	2,679,871	33.4	241	348	589	1,287,653	45.7	107	199	306	1,392,218	22.0
Kaohsiung City	717	1,056	1,773	2,779,268	63.8	531	718	1,249	1,386,913	90.1	186	338	524	1,392,355	37.6
Kinmen County	8	8	16	116,912	13.7	5	5	10	58,874	17.0	3	3	6	58,038	10.3
Lienchiang County	-	3	3	11,738	25.6	-	1	1	6,686	15.0	-	2	2	5,052	39.6

Table 35 Confirmed tuberculosis cases — by age & sex, 2013

Age	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
Total	4,592	6,936	11,528	23,344,670	49.4	3,328	4,743	8,071	11,678,997	69.1	1,264	2,193	3,457	11,665,673	29.6
0-4	-	13	13	985,317	1.3	-	4	4	511,886	0.8	-	9	9	473,431	1.9
5-9	1	17	18	1,054,123	1.7	-	11	11	551,264	2.0	1	6	7	502,859	1.4
10-14	8	28	36	1,339,698	2.7	4	12	16	699,161	2.3	4	16	20	640,537	3.1
15-19	74	163	237	1,586,239	14.9	42	101	143	824,092	17.4	32	62	94	762,147	12.3
20-24	100	208	308	1,608,561	19.1	59	126	185	836,768	22.1	41	82	123	771,793	15.9
25-29	88	196	284	1,669,463	17.0	42	118	160	849,899	18.8	46	78	124	819,564	15.1
30-34	133	258	391	2,026,589	19.3	74	132	206	1,009,568	20.4	59	126	185	1,017,021	18.2
35-39	168	269	437	1,899,235	23.0	106	148	254	940,446	27.0	62	121	183	958,789	19.1
40-44	242	263	505	1,826,439	27.6	175	174	349	906,430	38.5	67	89	156	920,009	17.0
45-49	287	344	631	1,865,633	33.8	224	232	456	930,250	49.0	63	112	175	935,383	18.7
50-54	345	436	781	1,850,963	42.2	255	287	542	918,009	59.0	90	149	239	932,954	25.6
55-59	388	494	882	1,655,997	53.3	304	346	650	812,726	80.0	84	148	232	843,271	27.5
60-64	379	514	893	1,329,134	67.2	303	362	665	645,684	103.0	76	152	228	683,450	33.4
65+	2,379	3,733	6,112	2,647,279	230.9	1,740	2,690	4,430	1,242,814	356.4	639	1,043	1,682	1,404,465	119.8

Table 36 Confirmed tuberculosis cases—by aboriginal locality / township, 2013

Locality	Township	Smear-positive	Others	Total	Midyear population	Per 100,000 population
Total		159	183	342	172,631	198.1
New Taipei City	Wulai District	1	3	4	6,006	66.6
Taoyuan County	Fusing Township	14	7	21	10,626	197.6
Hsinchu County	Jianshih Township	9	10	19	9,066	209.6
Hsinchu County	Wufong Township	5	5	10	4,532	220.7
Yilan County	Datong Township	8	10	18	5,960	302.0
Yilan County	Nanao Township	6	9	15	5,899	254.3
Miaoli County	Taian Township	6	5	11	5,931	185.5
Taichung City	Heping District	2	6	8	10,572	75.7
Nantou County	Renai Township	20	19	39	15,662	249.0
Nantou County	Sinyi Township	14	16	30	16,765	178.9
Chiayi County	Alishan Township	3	1	4	5,718	70.0
Kaohsiung City	Maolin District	2	1	3	1,835	163.5
Kaohsiung City	Taoyuan District	5	3	8	4,483	178.5
Kaohsiung City	Namasia District	2	3	5	3,158	158.3
Pingtung County	Sandimen Township	7	7	14	7,544	185.6
Pingtung County	Shihzih Township	1	3	4	4,783	83.6
Pingtung County	Majia Township	4	6	10	6,591	151.7
Pingtung County	Laiyi Township	3	8	11	7,630	144.2
Pingtung County	Chunrih Township	2	8	10	4,827	207.2
Pingtung County	Taiwu Township	2	6	8	5,097	157.0
Pingtung County	Mudan Township	2	3	5	4,807	104.0
Pingtung County	Wutai Township	1	2	3	3,153	95.1
Hualien County	Sioulin Township	21	19	40	15,217	262.9
Hualien County	Wanrong Township	4	4	8	6,554	122.1
Hualien County	Jhuosi Township	6	7	13	6,152	211.3
Taitung County	Yanping Township	2	4	6	3,551	169.0
Taitung County	Haiduan Township	2	3	5	4,371	114.4
Taitung County	Jinfong Township	2	3	5	3,511	142.4
Taitung County	Daren Township	3	2	5	3,797	131.7
Taitung County	Lanyu Township	-	-	-	4,887	0.0

PART IV

Appendix

◎ **Abbreviations and Symbols Used in Table**

— No reported cases.

… Not under surveillance.

Appendix 1

List of cases number update

Year	HIV Infection		AIDS		Hansen's Disease	
	reported	confirmed	reported	confirmed	reported	confirmed
2004	1,520	1,520	258	258	9	9

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, Human Infections with Influenza A(H5N1) Virus	24 hours	Isolation care at designated isolation care institution	1、2、6、11
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 E. coli Infection, Hantavirus Syndrome, Cholera, Rubella, Multidrug-Resistant Tuberculosis, Chikungunya Fever, West Nile Fever, Epidemic Typhus Fever, Anthrax	24 hours	When necessary, patients may be placed in designated isolation care institutions for isolation care.	1、2、11
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, Hansens'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	24 hours	When necessary, patients may be placed in designated isolation care institutions for isolation care.	1、2、6、7、8、9、14
	Invasive Pneumococcal Disease, Q Fever, Endemic Typhus Fever, Lyme Disease, Tularemia, Scrub Typhus, Varicella, 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、12、13、14
	Middle East Respiratory Syndrome Coronavirus Infections, H7N9 Influenza		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 9, 2011, Class IV 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 IV 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 V Notifiable Communicable Diseases.
11. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100062 dated January 24, 2013 of the Department of Health, "Anthrax" is changed from the list of Class I Notifiable Communicable Diseases to Class II.
12. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100343 dated March 14, 2013 of the Department of Health, "Severe Acute Respiratory Infections associated with Novel Coronavirus" is changed name to "Novel Coronavirus Infections" in the list of Class V Notifiable Communicable Disease
13. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100463 dated April 3, 2013 of the Department of Health, "H7N9 Influenza" is included in the list of Class V Notifiable Communicable Diseases.
14. According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100731 dated June 7, 2013 of the Department of Health, "Novel Coronavirus Infection" is changed name to "Middle East Respiratory Syndrome Coronavirus Infections" in the list of Class V Notifiable Communicable Disease. "Cat-Scratch Disease" and "NDM-1 Enterobacteriaceae" are removed from the list of Class IV Notifiable Communicable Disease.

Appendix 3

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

Please protect patient's privacy

Hos-pital	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	☐Male ☐Female	Date of Birth	(Y) (M) (D)	I.D. Number / Passport Number	
Nationality	☐ National ☐Other_____ Residence：☐Alien Labor☐Alien Identity：☐Mainland Chinese ☐Alien Bride ☐Mainland Bride ☐Unknown	Tel	Office / Home / Mobil			Marital Status	☐Single ☐Married ☐Widowed ☐Divorced ☐Separation
Address			Occupation			Animal contact (within 3 months) ☐ No ☐ Yes	

II. Medical Record and Date

Medical Record No.		Date of Onset	(Y) (M) (D)	Travel history(within 3 months) ☐ No ☐ Yes, place：_____ From： (Y) (M) (D) To： (Y) (M) (D)	
Major Symptoms		Date of Diagnosis	(Y) (M) (D)		
Hospital Care	☐ Yes ☐ No ☐ Referred (Date:) to _____Hospital/Clinic		Specimen Collection	☐Yes ☐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)

III. The Disease

Category I Communicable Diseases

☐Smallpox ☐Plague
☐Severe Acute Respiratory Syndrome
☐Rabies
☐H5N1 Influenza

Category II Communicable Diseases

☐Diphtheria ☐Typhoid Fever
☐Dengue Fever
☐Dengue Hemorrhagic Fever / Dengue Shock Syndrome
☐Meningococcal Meningitis
☐Paratyphoid Fever
☐Poliomyelitis
☐Acute Flaccid Paralysis
☐Shigellosis ☐Amoebiasis
☐Malaria ☐Measles
☐Acute Hepatitis A
☐EHEC (Enterohaemorrhagic *E. coli*) Infection
Hantavirus Syndrome
☐Hemorrhagic Fever with Renal Syndrome
☐Hantavirus Pulmonary Syndrome
☐Cholera ☐Rubella
☐MDR-TB ☐Chikungunya Fever
☐West Nile Fever ☐Typhus
☐Anthrax

Category III Communicable Diseases

☐Pertussis ☐Tetanus
☐Japanese Encephalitis
☐Tuberculosis
☐Congenital Rubella Syndrome
Acute Hepatitis(except Hepatitis A)
☐Type B ☐Type C ☐Type D ☐Type E
☐Unspecified (070x)
☐Mumps ☐Legionellosis
☐Invasive Haemophilus Influenzae Type b Infection
☐Syphilis ☐Gonorrhea
☐Neonatal Tetanus
☐Enteroviruses Infection with Severe Complications
AIDS
☐HIV infection
☐AIDS
Specify risk factors for HIV/AIDS infection：
_____
Confirmation Unit of Western Blot：
_____
Confirmation Unit of RT-PCR：
_____
Confirmation Unit of DNA-PCR：
_____
☐Hansen's Disease

Category IV Communicable Diseases

☐Herpesvirus B Infection
☐Leptospirosis ☐Melioidosis
☐Botulism
☐Invasive Pneumococcal Disease
☐Q fever ☐Murine Typhus
☐Lyme Disease ☐Tularemia
☐Scrub Typhus
☐Varicella
☐Toxoplasmosis
☐Complicated Influenza
☐Brucellosis

☐**Creutzfeldt-Jakob disease**

Category V Communicable Diseases

☐Rift Valley Fever
☐Marburg Haemorrhagic Fever
☐Yellow Fever
☐Ebola Haemorrhagic Fever
☐Lassa Fever
☐Middle East Respiratory Syndrome Coronavirus Infections
☐H7N9 Influenza
☐Others _____

IV. Remarks

1. Tuberculosis：☐Acid fast stain: ☐ Positive ☐ Negative ☐ Not tested ☐ Tested but not detected，Date of Testing:_____(y/m/d)
☐TB culture: ☐ Positive ☐ Negative ☐ Not tested ☐ Tested but not detected，Date of Testing: _____(y/m/d)
☐PCR: ☐ Positive ☐ Negative ☐ Not tested ☐ Tested but not detected，Date of Testing: _____(y/m/d)
☐Typical tuberculosis pathology report，Date of Testing: _____(y/m/d)，☐pleural effusion
☐Chest and other X-ray examination: ☐Normal☐No cavity☐With cavity，Date of Examination:_____(y/m/d)；
2. Testing result by reported hospital：

※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.

For Health Agency

Signed by Person-in-charge		Signed by Section Chief	

Reply Letter

Express

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-1020100731 dated June 7, 2013 of the Department of Health, "Novel Coronavirus Infection" is changed name to "Middle East Respiratory Syndrome Coronavirus Infections" in the list of Class V Notifiable Communicable Disease. "Cat-Scratch Disease" and "NDM-1 Enterobacteriaceae" are removed from the list of Class IV Notifiable Communicable Disease.

(2) According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100463 dated April 3, 2013 of the Department of Health, "H7N9 Influenza" is included in the list of Class V Notifiable Communicable Diseases.

(3) According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100343 dated March 14, 2013 of the Department of Health, "Severe Acute Respiratory Infections associated with Novel Coronavirus" is changed name to "Novel Coronavirus Infections" in the list of Class V Notifiable Communicable Disease.

(4) According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1020100062 dated January 24, 2013 of the Department of Health, "Anthrax" is changed from the list of Class I Notifiable Communicable Diseases to Class II.

(5) According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi- 1010101167dated October 3, 2012 of the Department of Health, is Severe Acute Respiratory Infections associated with Novel Coronavirus included in the list of Class 5 Notifiable Communicable Diseases.

(6) 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.

(7) According to Department of Health's Bulletin No. Shu-Shou-Ji-Zi-1000100896 dated September 9, 2011, Class 4 Notifiable Communicable Disease "Severe Complicated Influenza" is changed name to "Complicated Influenza."

(8) 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.

(9) 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.

(10) 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.

(11) 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).

(12) 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.

(13) 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.
HIV/AIDS, Gonorrhea and Syphilis：the married state of the case must be filled out.

(14) 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.)

(15) Website：https://ida4.cdc.gov.tw/hospital

For further information, please contact：

_____Health Bureau, Disease Control Section

Hot Line：_____

appendix 4

2013 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	30	31	1	2	3	4	5							~~1~~	~~2~~							~~1~~	~~2~~
week 2	6	7	8	9	10	11	12	week 6	3	4	5	6	7	8	9	week 10	3	4	5	6	7	8	9
week 3	13	14	15	16	17	18	19	week 7	10	11	12	13	14	15	16	week 11	10	11	12	13	14	15	16
week 4	20	21	22	23	24	25	26	week 8	17	18	19	20	21	22	23	week 12	17	18	19	20	21	22	23
week 5	27	28	29	30	31	1	2	week 9	24	25	26	27	28	1	2	week 13	24	25	26	27	28	29	30

	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	31	1	2	3	4	5	6	week 18	28	29	30	1	2	3	4								~~1~~	
week 15	7	8	9	10	11	12	13	week 19	5	6	7	8	9	10	11	week 23	2	3	4	5	6	7	8	
week 16	14	15	16	17	18	19	20	week 20	12	13	14	15	16	17	18	week 24	9	10	11	12	13	14	15	
week 17	21	22	23	24	25	26	27	week 21	19	20	21	22	23	24	25	week 25	16	17	18	19	20	21	22	
	~~28~~	~~29~~	~~30~~					week 22	26	27	28	29	30	31	1	week 26	23	24	25	26	27	28	29	

	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	30	1	2	3	4	5	6						~~1~~	~~2~~	~~3~~	week 36	1	2	3	4	5	6	7	
week 28	7	8	9	10	11	12	13	week 32	4	5	6	7	8	9	10	week 37	8	9	10	11	12	13	14	
week 29	14	15	16	17	18	19	20	week 33	11	12	13	14	15	16	17	week 38	15	16	17	18	19	20	21	
week 30	21	22	23	24	25	26	27	week 34	18	19	20	21	22	23	24	week 39	22	23	24	25	26	27	28	
week 31	28	29	30	31	1	2	3	week 35	25	26	27	28	29	30	31		~~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	31	1	2	3	4	5							~~1~~	~~2~~	week 49	1	2	3	4	5	6	7	
week 41	6	7	8	9	10	11	12	week 45	3	4	5	6	7	8	9	week 50	8	9	10	11	12	13	14	
week 42	13	14	15	16	17	18	19	week 46	10	11	12	13	14	15	16	week 51	15	16	17	18	19	20	21	
week 43	20	21	22	23	24	25	26	week 47	17	18	19	20	21	22	23	week 52	22	23	24	25	26	27	28	
week 44	27	28	29	30	31	1	2	week 48	24	25	26	27	28	29	30		~~29~~	~~30~~						

Acknowledgement

We would like to thank all medical practitioners, laboratory personnel, nurses, public health professionals, as well as partners from public and private healthcare institutions and other government agencies, who contributed to the data and information published in this report. We acknowledge their invaluable contributions towards our national efforts in communicable diseases surveillance, prevention and control, and look forward to their continued support and cooperation in our work.

List of information providers

Centers for Disease Control, Ministry of Health and Welfare
Lo-Sheng Sanatorium, Department of Health, Executive Yuan
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
Public Health Bureau, Hsinchu City Government
Public Health Bureau, Hsinchu County Government
Public Health Bureau of Miaoli County Government
Health Bureau, Taichung City Government
Changhua County Public Health Bureau
Pulbic Health Bureau, Nantou County Government
Public Health Bureau, Yunlin County
Public Health Bureau, Chiayi City
Chiayi County Health Bureau
Department of Health, Tainan City
Department of Health, Kaohsiung City Government
Pulbic Health Bureau, Pingtung County Government
Pulbic Health Bureau, Penghu County
Hualien County Health Bureau
Public Health Bureau, Taitung County

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