ISSN 1992-4526

# Statistics of Communicable Diseases and Surveillance Report 2014

Annual December 2015

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

# Statistics of Communicable Diseases and Surveillance Report Republic of China

### 2014

Annual December 2015

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

Chief Editor: Steve Hsu-Sung Kuo Associate Editors: Jih-Haw Chou, Jen-Hsiang Chuang, Ying-Hwei Chen Ding-Ping Liu, Jer-Jea Yan, Chang-Hsun Chen, Chin-Hui Yang, Shu-Hui Tseng, Ho-Sheng Wu, Yi-Chun Wu Executive Editor: Pei-Jung Chen, Wan-Jen Wu

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

### Contents

	ts
I. Sumr	nary Tables and Graphs for Confirmed Cases
Table 1	Number of confirmed cases of notifiable diseases - by locality, 20142
Table 2	Number of confirmed cases and incidence rate of notifiable diseases – by age group, 2014
Table 3	Number of confirmed cases of notifiable diseases - by month, 2014 18
Table 4	Number of confirmed cases and incidence rate of notifiable diseases –
	by sex, 2014
Table 5	Number of confirmed cases of notifiable diseases – by year, 2005-2014 24
Table 6	Analysis of time intervals between diagnosis and reporting for notifiable diseases – by locality, 2014
Table 7	Analysis of time intervals between reporting and reports received for notifiable diseases – by locality, 2014
Table 8	Analysis of time intervals between reports received from local health bureau to Taiwan CDC for notifiable diseases – by locality, 2014
Table 9	Cases of Acute Flaccid Paralysis, Neonatal Tetanus, Congenital Rubella Syndrome and Measles Eradication Program – by locality, 2014
Table10	National immunization coverage – by counties/cities
Figure1	Comparison of 2014 total confirmed cases of notifiable diseases with historical data
II. Spec	ific Surveillance Systems
Noso	comial Infections Surveillance System42
Schoo	ol-based Surveillance System49
Labo	ratory Surveillance System55
Quara	antine Service
Mosq	uito Surveillance
Symp	tom Surveillance System69
Real-	time Outbreak and Disease Surveillance System

Disease Surveillance using National Health Insurance Data	83
Pneumonia and Influenza Mortality Surveillance	86

### III. Surveillance Reports of Selected Diseases

Measles	
Pertussis	
Meningococcal Meningitis	
Japanese Encephalitis	
Acute Hepatitis A	102
Acute Hepatitis B	106
Acute Hepatitis C	109
Scrub Typhus	112
Legionnaires' Disease	115
Dengue Fever	118
Enteroviruses Infection with Severe Complications	123
Malaria	126
Shigellosis	129
Severe Complicated Influenza	133
Syphilis	141
Gonorrhea	144
HIV Infection & AIDS	147
Tuberculosis	153

### IV. Appendix

1. Regulations for notifiable diseases	166
2. Report of cases of communicable and emerging infectious diseases,	include
suspected cases	168
3. 2014 calendar for re-defined months	172

### Acknowledgement

### **Explanatory Notes**

- 1. Taiwan in this Report includes Taiwan Island, Penghu, Kinmen and Matsu.
- 2. The Report includes the notifiable diseases\* and other relevant communicable diseases. Individual cases were reported by medical care institutions and physicians through the case reporting system for communicable diseases. Alternatively, medical care institutions and physicians also reported cases by submitting a "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 for 2014 are to maintain the achievements in poliomyelitis eradication, neonatal tetanus elimination, measles 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. As WHO modified the definition, we have generated the statistical data without category to make consistent baseline over the years.
- (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.

- (22) Category IV Notifiable Communicable Disease "Varicella" has been changed name to "Complications of Varicella" according to MOHW Bulletin No. Bu-Shou-Ji-Zi-1020103975 dated December 27, 2013.
- (23) "Novel Influenza A Virus Infections" is included in the list of Category V Notifiable Communicable Disease and Category 1 Notifiable Communicable Disease "H5N1 Influenza" as well as Category 5 Notifiable Communicable Disease "H7N9 Influenza" are removed from the list according to MOHW Bulletin No. Bu-Shou-Ji-Zi-10301009927 dated June 27, 2014.
- (24) Category IV Notifiable Communicable Disease "Complicated Influenza" has been changed name to "Severe Complicated Influenza" according to MOHW Bulletin No. Bu-Shou-Ji-Zi-1030101132 dated August 1, 2014.
- (25) "Ebola Haemorrhagic Fever" has been changed name to "Ebola Virus Disease" according to MOHW Bulletin No. Bu-Shou-Ji-Zi-1030101208 dated August 8, 2014.
- 5. Symbols: "-" for no reported cases; "..." for not under surveillance.
- 6. Figures may not sum up to the total due to rounding.

\* Please see Appendix 1 for classification of communicable diseases.

<sup>\*\*</sup> 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

O Abbreviations and Symbols Used in Table

- No reported cases.
- ... Not under surveillance.

Table 1	Number of confirmed cases of notifiable diseas	ses — by locality, 2014
---------	--	-------------------------

Unit: Person

			Category II					
Area / Locality	Midyear population	Smallpox	Plague	SARS	Rabies	H5N1 <sup>1</sup> Influenza	Diphtheria	Typhoid <sup>2</sup> Fever
Total	23,403,635	-	-	-	-	-	-	25
Taipei Area								
Taipei City	2,694,416	-	-	-	-	-	-	3
New Taipei City	3,960,874	-	-	-	-	-	-	9
Keelung City	373,996	-	-	-	-	-	-	-
Yilan County	458,617	-	-	-	-	-	-	-
Kinmen County	124,218	-	-	-	-	-	-	-
Lienchiang County	12,336	-	-	-	-	-	-	-
Northern Area								
Taoyuan City	2,051,176	-	-	-	-	-	-	4
Hsinchu City	430,236	-	-	-	-	-	-	1
Hsinchu County	534,058	-	-	-	-	-	-	-
Miaoli County	566,343	-	-	-	-	-	-	-
Central Area								
Taichung City	2,710,748	-	-	-	-	-	-	3
Changhua County	1,293,744	-	-	-	-	-	-	1
Nantou County	515,769	-	-	-	-	-	-	-
Southern Area								
Yunlin County	706,574	-	-	-	-	-	-	-
Chiayi City	270,878	-	-	-	-	-	-	-
Chiayi County	527,006	-	-	-	-	-	-	-
Tainan City	1,883,746	-	-	-	-	-	-	-
Kao-Ping Area								
Kaohsiung City	2,779,435	-	-	-	-	-	-	4
Pingtung County	850,102	_	-	-	-	-	-	-
Penghu County	101,079	-	-	-	-	-	-	-
Eastern Area								
Hualien County	333,645	_	-	-	-	-	-	-
Taitung County	224,646	_	-	-	-	-	-	-
Others		-	-	-	-	-	-	-

Note: <sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H5N1 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup> Nineteen cases of typhoid fever were imported in 2014.

#### Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2014

Unit: Person

Unit: Person	1									
	Category II									
Area / Locality	Dengue² Fever	Dengue Hemorrhagic Fever /Dengue Shock Syndrome	Meningococcal Meningitis	Paratyphoid <sup>2</sup> Fever	Poliomyelitis	Acute <sup>3</sup> Flaccid Paralysis	Shigellosis <sup>2</sup>	Amoebiasis <sup>2</sup>		
Total	15,732	136	3	8	-	29	132	300		
Taipei Area										
Taipei City	69	-	-	1	-	3	30	39		
New Taipei City	54	-	1	1	-	3	36	54		
Keelung City	1	-	-	-	-	1	7	1		
Yilan County	1	-	-	-	-	-	7	9		
Kinmen County	-	-	-	-	-	-	1	-		
Lienchiang County	-	-	-	-	-	-	-	-		
Northern Area										
Taoyuan City	26	-	1	1	-	3	21	26		
Hsinchu City	5	-	-	-	-	-	-	3		
Hsinchu County	7	-	_	-	-	-	3	10		
Miaoli County	4	-	-	-	-	1	-	10		
Central Area										
Taichung City	47	-	1	4	-	5	11	24		
Changhua County	9	-	-	1	-	1	1	13		
Nantou County	4	-	-	-	-	1	-	3		
Southern Area										
Yunlin County	11	_	_	_	_	_	_	9		
Chiayi City	7	_	_	_	_	_	_	2		
Chiayi County	6		_	_	_	_	2	6		
Tainan City	175	2	-	-	-	4	1	27		
Kao-Ping Area										
Kaohsiung City	15,043	132	_	_	_	6	1	27		
Pingtung County	228	2	_			1	1	12		
Penghu County	16	-	-	-	-	-	- 1	9		
Eastern Area										
Hualien County	2						7	0		
Taitung County	3 16	-	-	-	-	-	3	8		
	10	-	-	-	-	-	3	0		
Others	-	-	-	<u> </u>	-		-	-		

Note:<sup>2</sup> The case amount in 2014 contained imported cases, including 240 dengue fever, eight paratyphoid fever, 117 shigellosis, and 197 amoebiasis.

<sup>3</sup> 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, 2014

 Unit: Person

		Category II									
	Midyear	Mala	aria <sup>2</sup>		• • • •	Enterohae	Hantavirus Syndrome				
Area / Locality	population	Indigenous	Imported	Measles <sup>2</sup>	Acute <sup>2</sup> Hepatitis A	morrhagic <i>E. coli</i> Infection	Hemorrhagic Fever with Renal Syndrome	Hantavirus Pulmonary Syndrome			
Total	23,403,635	-	19	26	117	-	2	-			
Taipei Area											
Taipei City	2,694,416		2	7	18	-	-	-			
New Taipei City	3,960,874		6	1	28	-	1	-			
Keelung City	373,996		1	-	3	-	-	-			
Yilan County	458,617		-	-	5	-	-	-			
Kinmen County	124,218		-	-	-	-	-	-			
Lienchiang County	12,336	-	-	-	-	-	-	-			
Northern Area											
Taoyuan City	2,051,176	-	-	3	18	-	-	-			
Hsinchu City	430,236	-	2	1	1	-	-	-			
Hsinchu County	534,058	-	-	-	2	-	-	-			
Miaoli County	566,343	-	-	-	-	-	-	-			
Central Area											
Taichung City	2,710,748	-	-	4	15	-	-	-			
Changhua County	1,293,744		1	-	5	-	-	-			
Nantou County	515,769	-	1	5	-	-	-	-			
Southern Area											
Yunlin County	706,574	-	1	-	3	-	-	-			
Chiayi City	270,878		-	-	-	-	-	-			
Chiayi County	527,006		-	-	1	-	-	-			
Tainan City	1,883,746		2	-	3	-	-	-			
Kao-Ping Area											
Kaohsiung City	2,779,435	-	2	3	10	-	1	_			
Pingtung County	850,102		-	1	3	-	-	_			
Penghu County	101,079	-	-	-	-	-	-	-			
Eastern Area											
Hualien County	333,645	_	1	1	2	_	_	_			
Taitung County	224,646		-	-	2	-	_				
Others	<i></i> ,0 <del>1</del> 0	_	-	-	-	-	_	-			
0.1013											

Note: <sup>2</sup> The case amount in 2014 contained imported cases, including 19 malaria, 18 measles, and 49 acute hepatitis A.

#### Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2014

				Category II			
Area / Locality	Cholera	Rubella <sup>2</sup>	MDR-TB <sup>4</sup>	Chikungunya <sup>2</sup> Fever	West Nile Fever	Epidemic Typhus Fever	Anthrax
Total	4	7	112	7	-	-	-
Taipei Area							
Taipei City	-	2	2	2	-	-	-
New Taipei City	1	2	15	3	-	-	-
Keelung City	-	-	4	-	-	-	-
Yilan County	-	-	7	-	-	-	-
Kinmen County	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-
Northern Area							
Taoyuan City	-	-	7	-	-	-	-
Hsinchu City	-	-	2	-	-	-	-
Hsinchu County	-	_	3	-	-	-	-
Miaoli County	-	-	1	-	-	-	-
Central Area							
Taichung City	-	1	10	2	-	-	-
Changhua County	-	-	10	-	-	-	-
Nantou County	-	-	4	-	-	-	-
Southern Area							
Yunlin County	1	_	4	_	-	_	_
Chiayi City	1		2	_	_	_	_
Chiayi County		_	4	_	_	_	
Tainan City		1	- 8	_	_	_	_
			0				
Kao-Ping Area			10				
Kaohsiung City	1	-	13	-	-	-	-
Pingtung County	-	1	8	-	-	-	-
Penghu County	-	-	-	-	-	-	-
Eastern Area							
Hualien County	-	-	7	-	-	-	-
Taitung County	-	-	1	-	-	-	-
Others	-	-	-	-	-	-	-

Unit: Person

Note:<sup>2</sup> The case amount in 2014 contained imported cases, including six rubella and seven chikungunya fever. <sup>4</sup> 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, 2014

Unit: Person

Unit: Person		Category III										
Area / Locality	Midyear population	Pertussis <sup>2</sup>	Tetanus⁵	Japanese Encephalitis	Tuberculosis <sup>4</sup>	Congenital Rubella Syndrome	Acute <sup>2</sup> Hepatitis B					
Total	23,403,635	78	9	18	11,326	-	120					
Taipei Area												
Taipei City	2,694,416	13	-	-	905	-	18					
New Taipei City	3,960,874	26	1	-	1,798	-	21					
Keelung City	373,996	-	-	-	176	-	4					
Yilan County	458,617	1	-	1	256	-	2					
Kinmen County	124,218	-	-	-	20	-	-					
Lienchiang County	12,336	-	-	-	2	-	-					
Northern Area												
Taoyuan City	2,051,176	11	-	-	839	-	21					
Hsinchu City	430,236	1	-	-	138	-	1					
Hsinchu County	534,058	3	-	1	190	-	2					
Miaoli County	566,343	1	1	-	185	-	7					
Central Area												
Taichung City	2,710,748	3	1	1	1,100	-	9					
Changhua County	1,293,744	2	2	4	709	-	6					
Nantou County	515,769	2	-	-	349	-	1					
Southern Area												
Yunlin County	706,574	1	-	-	493	-	1					
Chiayi City	270,878	-	-	2	127	-	1					
Chiayi County	527,006	2	-	-	275	-	1					
Tainan City	1,883,746	2	-	3	893	-	10					
Kao-Ping Area												
Kaohsiung City	2,779,435	5	3	2	1,751	-	10					
Pingtung County	850,102	-	-	4	662	-	2					
Penghu County	101,079	-	1	-	16	-	-					
Eastern Area												
Hualien County	333,645	5	-	-	264	-	3					
Taitung County	224,646	-	-	-	178	-	-					
Others	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	-	-	-	-	-					

Note: <sup>2</sup> The case amount in 2014 contained imported cases, including one pertussis and three acute hepatitis B. <sup>4</sup> The caseload of tuberculosis was estimated based on notification date.

<sup>5</sup> Calculation for tetanus was based on reported cases only.

	Category III									
	Acute Hepatitis						Invasive			
Area / Locality						Legionnaires' <sup>2</sup>	Haemophilus			
/ wou / Loodinty	С	D	E <sup>2</sup>	Un-	Mumps⁵	Disease	Influenzae			
	C	D	L	specified		Dioodoo	Type b			
							Infection			
Total	205	1	9	1	880	135	4			
Taipei Area										
Taipei City	31	-	3	-	130		-			
New Taipei City	32	-	2	-	139		-			
Keelung City	17	-	1	-	18		-			
Yilan County	6	-	-	-	24	2	-			
Kinmen County	1	-	-	-	-	1	-			
Lienchiang County	-	-	-	-	1	-	-			
Northern Area										
Taoyuan City	18	-	-	-	74	9	1			
Hsinchu City	5	-	-	-	15	-	1			
Hsinchu County	3	-	-	-	27	2	-			
Miaoli County	1	-	-	-	23	5	-			
Central Area										
Taichung City	9	1	-	-	72	9	-			
Changhua County	4	-	-	-	51	15	-			
Nantou County	2	-	-	-	24	2	-			
Southern Area										
Yunlin County	9	-	-	1	21	1	-			
Chiayi City	2	-	-	-	5		-			
Chiayi County	5	-	-	-	8		-			
Tainan City	18	-	1	-	52	7	-			
Kao-Ping Area										
Kaohsiung City	22	-	1	-	113	24	1			
Pingtung County		-	1	-	26		-			
Penghu County	4	-	-	-	28		-			
Eastern Area										
Hualien County	10	-	_	-	17	3	-			
Taitung County	2	-	-	-	12		1			
Others	-	-	_	-		_	-			

 Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2014

 Unit: Person

Note:<sup>2</sup> The case amount in 2014 contained imported cases, including four acute hepatitis E and six legionnaires' disease.

<sup>5</sup>Calculation for mumps was based on reported cases only.

#### Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2014

Unit: Person

Unit: Person					0			
		Category III						
Area / Locality	Midyear population	Syphilis <sup>6</sup>	Gonorrhea <sup>6</sup>	Neonatal Tetanus	Enteroviruses Infection with Severe Complications	HIV <sup>7</sup> Infection	AIDS <sup>7</sup>	Hansen's <sup>6</sup> Disease
Total	23,403,635	6,986	2,622	-	6	2,236	1,387	9
Taipei Area								
Taipei City	2,694,416	890	614	-	-	379	199	2
New Taipei City	3,960,874	1,480	641	-	1	568	315	3
Keelung City	373,996	125	61	-	-	26	20	1
Yilan County	458,617	188	17	-	-	29	12	-
Kinmen County	124,218	4	-	-	-	1	-	-
Lienchiang County	12,336	-	-	-	-	-	-	-
Northern Area								
Taoyuan City	2,051,176	811	308	-	-	191	127	-
Hsinchu City	430,236	86	32	-	-	41	31	-
Hsinchu County	534,058	87	62	-	-	31	19	-
Miaoli County	566,343	79	59	-	-	11	10	-
Central Area								
Taichung City	2,710,748	801	181	-	2	272	169	1
Changhua County	1,293,744	250	62	-	1	54	61	
Nantou County	515,769	84	32	-	-	35	25	-
Southern Area								
Yunlin County	706,574	141	38	-	-	33	32	-
Chiayi City	270,878	62	17	-	1	9	8	
Chiayi County	527,006	104	30	-	-	14	18	
Tainan City	1,883,746	425	133	-	-	153	82	
Kao-Ping Area								
Kaohsiung City	2,779,435	933	240	-	1	299	197	1
Pingtung County	850,102	235	41	-	-	59	34	-
Penghu County	101,079	36	2	-	-	-	-	-
Eastern Area								
Hualien County	333,645	114	39	-	-	20	23	1
Taitung County	224,646	51	13	-	-	11	5	
Others	-	-	-	-	-	-		-

Note: <sup>6</sup> The caseload of syphilis, gonorrhea and Hansen's disease were estimated based on diagnosis date.

<sup>7</sup> 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, 2014Unit: Person

				Cat	egory IV				
Area / Locality	Llorpopuiruo				Invasive <sup>2</sup>		Endemic <sup>2</sup>	Lyme <sup>2</sup>	
, and a recounty	Herpesvirus B Infection	Leptospirosis <sup>2</sup>	Melioidosis <sup>2</sup>	Botulism	Pneumococcal	Q Fever	Typhus	Disease	Tularemia
	Dimeetion				Disease		Fever		
Total	-	98	37	-	587	42	21	2	-
Taipei Area									
Taipei City	-	11	1	-	50	1	-	1	-
New Taipei City	-	22	1	-	122	1	-	1	-
Keelung City	-	1	-	-	12	-	-	-	-
Yilan County	-	-	-	-	12	-	-	-	-
Kinmen County	-	-	-	-	-	1	-	-	-
Lienchiang County	-	-	-	-	1	-	-	-	-
Northern Area									
Taoyuan City	-	6	-	-	50	-	-	-	-
Hsinchu City	-	4	-	-	5	-	1	-	-
Hsinchu County	-	2	-	-	7	-	-	-	-
Miaoli County	-	6	-	-	9	-	-	-	-
Central Area									
Taichung City	-	11	3	-	60	5	2	-	-
Changhua County	-	6	-	-	29	5	4	-	-
Nantou County	-	1	1	-	8	1	-	-	-
Southern Area									
Yunlin County	-	1	-	-	24	-	-	-	-
Chiayi City	-	-	1	-	10	-	-	-	-
Chiayi County	-	1	-	-	21	-	-	-	-
Tainan City	-	2	3	-	48	9	3	-	-
Kao-Ping Area									
Kaohsiung City	-	9	22	-	65	18	6	-	-
Pingtung County	-	8	4	-	26	1	5		-
Penghu County	-	-	1	-	2	-	-	-	-
Eastern Area									
Hualien County	-	7	-	-	15	-	-	-	-
Taitung County	-	-	-	-	11	-	-	-	-
Others	-	-	-	-	-	-	-	-	-

Note:<sup>2</sup> The case amount in 2014 contained imported cases, including one leptospirosis, one melioidosis, one invasive pneumococcal disease, two endemic typhus fever, and two Lyme disease.

				Category	/ IV		
Area / Locality	Midyear population	Scrub <sup>2</sup> Typhus	Complicated <sup>2</sup> Varicella	Toxoplasmosis	Severe <sup>2</sup> Complicated Influenza	Creutzfeldt- <sup>6</sup> Jakob Disease	Brucellosis
Total	23,403,635	414	55	12	1,721	-	-
Taipei Area							
Taipei City	2,694,416	14	9	-	278	-	-
New Taipei City	3,960,874	8	12	3	524	-	-
Keelung City	373,996	-	1	2	10	-	-
Yilan County	458,617	5	1	-	15	-	-
Kinmen County	124,218	60	-	-	5	-	-
Lienchiang County	12,336	20	-	-	-	-	-
Northern Area							
Taoyuan City	2,051,176	14	2	-	120	-	-
Hsinchu City	430,236	-	2	-	10	-	-
Hsinchu County	534,058	9	-	-	27	-	-
Miaoli County	566,343	3	-	-	22	-	-
Central Area							
Taichung City	2,710,748	8	8	2	59	-	-
Changhua County	1,293,744	6	-	1	70	-	-
Nantou County	515,769	20	1	-	41	-	-
Southern Area							
Yunlin County	706,574	-	-	-	43	-	-
Chiayi City	270,878	-	1	1	10	-	-
Chiayi County	527,006	3	5	-	16	-	-
Tainan City	1,883,746	2	3	1	114	-	-
Kao-Ping Area							
Kaohsiung City	2,779,435	39	3	-	209	-	-
Pingtung County	850,102	10	2	-	60	-	-
Penghu County	101,079	96	-	-	7	-	-
Eastern Area							
Hualien County	333,645	34	3	1	44	-	-
Taitung County	224,646	63	2	1	37	-	-
Others		-	-	-	-	-	-

#### Table 1 (Continued) Number of confirmed cases of notifiable diseases —by locality, 2014

Note:<sup>2</sup> The case amount in 2014 contained imported cases, including two scrub typhus, one complicated varicella, and eight severe complicated influenza.

<sup>6</sup>The caseload of Creutzfeldt-Jakob disease was estimated based on diagnosis date.

				Cate	egory V			
Area / Locality	Rift Valley Fever	Marburg Haemorrhagic Fever	Yellow Fever	Ebola Virus Disease	Lassa Fever	Middle East Respiratory Syndrome Coronavirus Infections	H7N9 <sup>1,2</sup> Influenza	Novel <sup>1</sup> Influenza A Virus Infections
Total	-	-	-	-	-	-	2	-
Taipei Area								
Taipei City	-	-	-	-	-	-	-	-
New Taipei City	-	-	-	-	-	-	1	-
Keelung City	-	-	-	-	-	-	-	-
Yilan County	-	-	-	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan City	-	-	-	-	-	-	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	-	-			-	-	-	-

Table 1 (Continued) Number of confirmed cases of notifiable diseases — by locality, 2014

Note: <sup>1</sup>H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H7N9 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>Two cases of H7N9 influenza were imported in 2014.

### Table 2 Number of confirmed cases and incidence<sup>8</sup> rate of notifiable diseases — by age group, 2014

Diagona	<1	yr	1-4	yrs	5-14	yrs	15-24	l yrs	25-39	9 yrs
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I										
Smallpox	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza <sup>1</sup>	-	-	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever <sup>2</sup>	-	-	1	0.12	2	0.09	6	0.19	9	0.16
Dengue Fever <sup>2</sup>	7	3.66	147	18.27	1,127	48.66	1,920	61.05	3,460	62.16
Dengue Hemorrhagic Fever / Dengue Shock Syndrome	-	-	1	0.12	4	0.17	2	0.06	6	0.11
Meningococcal Meningitis	2	1.04	-	-	-	-	-	-	-	-
Paratyphoid Fever <sup>2</sup>	-	-	-	-	-	-	2	0.06	3	0.05
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis <sup>3</sup>	1	0.52	12	1.49	16	0.69	-	-	-	-
Shigellosis <sup>2</sup>	-	-	1	0.12	8	0.35	27	0.86	82	1.47
Amoebiasis <sup>2</sup>	-	-	-	-	-	-	46	1.46	183	3.29
Malaria <sup>2</sup>										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	-	-	-	-	1	0.04	2	0.06	8	0.14
Measles <sup>2</sup>	5	2.61	5	0.62	-	-	7	0.22	7	0.13
Acute Hepatitis A <sup>2</sup>	-	-	-	-	3	0.13	10	0.32	69	1.24
Enterohaemorrhagic E. coli Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	-	-

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H5N1 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup> The case amount in 2014 contained imported cases, including 19 typhoid fever, 240 dengue fever, eight paratyphoid fever, 117 shigellosis, 197 amoebiasis, 19 malaria, 18 measles, and 49 acute hepatitis A.

<sup>3</sup> 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, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus" in 1992.

### Table 2 (Continued) Number of confirmed cases and incidence8 rate of notifiable diseases— by age group, 2014

Disease	40-64	yrs	≥ 65	5 yrs	Age no	t stated	To	tal
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I								
Smallpox	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-
H5N1 Influenza <sup>1</sup>	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever <sup>2</sup>	7	0.08	-	-	-	-	25	0.11
Dengue Fever <sup>2</sup>	6,769	78.44	2,302	83.66	-	-	15,732	67.22
Dengue Hemorrhagic Fever / Dengue Shock Syndrome	23	0.27	100	3.63	-	-	136	0.58
Meningococcal Meningitis	1	0.01	-	-	-	-	3	0.01
Paratyphoid Fever <sup>2</sup>	3	0.03	-	-	-	-	8	0.03
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis <sup>3</sup>	-	-	-	-	-	-	29	0.12
Shigellosis <sup>2</sup>	13	0.15	1	0.04	-	-	132	0.56
Amoebiasis <sup>2</sup>	64	0.74	7	0.25	-	-	300	1.28
Malaria <sup>2</sup>								
Indigenous	-	-	-	-	-	-	-	-
Imported	7	0.08	1	0.04	-	-	19	0.08
Measles <sup>2</sup>	2	0.02	-	-	-	-	26	0.11
Acute Hepatitis A <sup>2</sup>	26	0.30	9	0.33	-	-	117	0.50
Enterohaemorrhagic E. coli Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome Hemorrhagic Fever with Renal Syndrome	2	0.02	-	-	-	-	2	0.01
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	3	0.03	1	0.04	-	-	4	0.02

Unit: Person

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H5N1 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup> The case amount in 2014 contained imported cases, including 19 typhoid fever, 240 dengue fever, eight paratyphoid fever, 117 shigellosis, 197 amoebiasis, 19 malaria, 18 measles, and 49 acute hepatitis A.

<sup>3</sup> 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, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus" in 1992.

## Table 2 (Continued) Number of confirmed cases and incidence8 rate of notifiable diseases— by age group, 2014

Diagona	<1	yr	1-4	yrs	5-14	yrs	15-24	4 yrs	25-39 yrs	
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category II	•••••									
Rubella <sup>2</sup>	-	-	-	-	2	0.09	1	0.03	3	0.05
MDR-TB⁴	-	-	-	-	-	-	2	0.06	8	0.14
Chikungunya Fever <sup>2</sup>	-	-	-	-	-	-	-	-	4	0.07
West Nile Fever	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis <sup>2</sup>	40	20.89	8	0.99	13	0.56	5	0.16	5	0.09
Tetanus⁵	-	-	-	-	-	-	1	0.03	-	-
Japanese Encephalitis	-	-	-	-	-	-	-	-	3	0.05
Tuberculosis <sup>4</sup>	5	2.61	8	0.99	39	1.68	487	15.48	1,029	18.49
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis										
B <sup>2</sup>	1	0.52	-	-	-	-	7	0.22	57	1.02
С	-	-	-	-	-	-	10	0.32	57	1.02
D	-	-	-	-	-	-	-	-	1	0.02
E <sup>2</sup>	-	-	-	-	-	-	1	0.03	2	0.04
Unspecified	-	-	-	-	-	-	1	0.03	-	-
Mumps⁵	6	3.13	150	18.64	399	17.23	72	2.29	103	1.85
Legionnaires' Disease <sup>2</sup>	-	-	-	-	-	-	-	-	6	0.11
Invasive <i>Haemophilus Influenzae</i> Type b Infection	1	0.52	-	-	-	-	1	0.03	1	0.02
Syphilis <sup>6</sup>	25	13.05	-	-	1	0.04	867	27.57	2,395	43.03
Gonorrhea <sup>6</sup>	-	-	-	-	7	0.30	897	28.52	1,402	25.19
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	3	1.57	3	0.37	-	-	-	-	-	-
HIV Infection <sup>7</sup>	1	0.52	1	0.12	2	0.09	658	20.92	1,213	21.79
AIDS <sup>7</sup>	-	-	-	-	1	0.04	161	5.12	807	14.50

Unit: Person

Note:<sup>2</sup>The case amount in 2014 contained imported cases, including six rubella, seven chikungunya fever, one pertussis, three acute hepatitis B, four acute hepatitis E, and six legionnaires' disease.

<sup>4</sup>The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

<sup>5</sup>Calculation for tetanus and mumps were based on reported cases only.

<sup>6</sup>The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

### Table 2 (Continued) Number of confirmed cases and incidence8 rate of notifiable diseases— by age group, 2014

Disease	40-64	1 yrs	≥ 65	yrs	Age not	t stated	Tot	tal
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category II								
Rubella <sup>2</sup>	1	0.01	-	-	-	-	7	0.03
MDR-TB⁴	57	0.66	45	1.64	-	-	112	0.48
Chikungunya Fever <sup>2</sup>	3	0.03	-	-	-	-	7	0.03
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-
Category III								
Pertussis <sup>2</sup>	7	0.08	-	-	-	-	78	0.33
Tetanus⁵	2	0.02	6	0.22	-	-	9	0.04
Japanese Encephalitis	11	0.13	4	0.15	-	-	18	0.08
Tuberculosis <sup>4</sup>	3,704	42.92	6,054	220.02	-	-	11,326	48.39
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B <sup>2</sup>	47	0.54	8	0.29	-	-	120	0.51
С	91	1.05	47	1.71	-	-	205	0.88
D	-	-	-	-	-	-	1	0.00
E <sup>2</sup>	4	0.05	2	0.07	-	-	9	0.04
Unspecified	-	-	-	-	-	-	1	0.00
Mumps⁵	123	1.43	27	0.98	-	-	880	3.76
Legionnaires' Disease <sup>2</sup>	54	0.63	75	2.73	-	-	135	0.58
Invasive <i>Haemophilus Influenzae</i> Type b Infection	1	0.01	-	-	-	-	4	0.02
Syphilis <sup>6</sup>	2,027	23.49	1,671	60.73	-	-	6,986	29.85
Gonorrhea <sup>6</sup>	303	3.51	13	0.47	-	-	2,622	11.20
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	-	-	-	-	-	-	6	0.03
HIV Infection <sup>7</sup>	341	3.95	20	0.73	-	-	2,236	9.55
AIDS <sup>7</sup>	398	4.61	20	0.73	-	-	1,387	5.93

Unit: Person

Note:<sup>2</sup>The case amount in 2014 contained imported cases, including six rubella, seven chikungunya fever, one pertussis, three acute hepatitis B, four acute hepatitis E, and six legionnaires' disease.

<sup>4</sup>The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

<sup>5</sup>Calculation for tetanus and mumps were based on reported cases only.

<sup>6</sup>The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

## Table 2 (Continued) Number of confirmed cases and incidence<sup>8</sup> rate of notifiable diseases — by age group, 2014

Unit:	Person

Disease	<1	l yr	1-4	yrs	5-14	yrs	15-24	4 yrs	25-39	9 yrs
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category III										
Hansen's Disease <sup>6</sup>	-	-	-	-	-	-	-	-	8	0.14
Category IV										
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-
Leptospirosis <sup>2</sup>	-	-	-	-	-	-	5	0.16	18	0.32
Melioidosis <sup>2</sup>	-	-	-	-	1	0.04	-	-	1	0.02
Botulism	-	-	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease <sup>2</sup>	11	5.74	67	8.33	27	1.17	6	0.19	53	0.95
Q Fever	-	-	-	-	-	-	-	-	12	0.22
Endemic Typhus Fever <sup>2</sup>	-	-	-	-	-	-	1	0.03	7	0.13
Lyme Disease <sup>2</sup>	-	-	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-	-	-
Scrub Typhus <sup>2</sup>	1	0.52	4	0.50	16	0.69	45	1.43	92	1.65
Complicated Varicella <sup>2</sup>	3	1.57	4	0.50	7	0.30	12	0.38	15	0.27
Toxoplasmosis	-	-	-	-	-	-	2	0.06	3	0.05
Severe Complicated Influenza <sup>2</sup>	11	5.74	59	7.33	58	2.50	64	2.03	198	3.56
Creutzfeldt-Jakob Disease <sup>6</sup>	-	-	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-	-	-
Category V										
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Virus Disease	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome Coronavirus Infections	-	-	-	-	-	-	-	-	-	-
H7N9 Influenza <sup>1,2</sup>	-	-	-	-	-	-	-	-	1	0.02
Novel Influenza A Virus Infections <sup>1</sup>	-	-	-	-	-	-	-	-	-	-

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H7N9 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including one leptospirosis, one melioidosis, one invasive pneumococcal disease, two endemic typhus fever, two Lyme disease, two scrub typhus, one complicated varicella, eight severe complicated influenza, and two H7N9 influenza.

<sup>6</sup>The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date. <sup>8</sup>Incidence rate indicates the number of new confirmed cases per 100,000 population.

### Table 2 (Continued) Number of confirmed cases and incidence<sup>8</sup> rate of notifiable diseases — by age group, 2014

Diagona	40-64	4 yrs	≥ 65	yrs	Age not	t stated	Tot	al
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate
<b>Category III</b> Hansen's Disease <sup>6</sup>	-	-	1	0.04	-	-	9	0.04
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis <sup>2</sup>	58	0.67	17	0.62	-	-	98	0.42
Melioidosis <sup>2</sup>	22	0.25	13	0.47	-	-	37	0.16
Botulism	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease <sup>2</sup>	179	2.07	244	8.87	-	-	587	2.51
Q Fever	26	0.30	4	0.15	-	-	42	0.18
Endemic Typhus Fever <sup>2</sup>	13	0.15	-	-	-	-	21	0.09
Lyme Disease <sup>2</sup>	2	0.02	-	-	-	-	2	0.01
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus <sup>2</sup>	188	2.18	68	2.47	-	-	414	1.77
Complicated Varicella <sup>2</sup>	12	0.14	2	0.07	-	-	55	0.24
Toxoplasmosis	7	0.08	-	-	-	-	12	0.05
Severe Complicated Influenza <sup>2</sup>	629	7.29	702	25.51	-	-	1,721	7.35
Creutzfeldt-Jakob Disease <sup>6</sup>	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Virus Disease	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome Coronavirus Infections	-	-	-	-	-	-	-	-
H7N9 Influenza <sup>1, 2</sup>	1	0.01	-	-	-	-	2	0.01
Novel Influenza A Virus Infections <sup>1</sup>	-	-	-	-	-	-	-	-

Unit: Person

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H7N9 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including one leptospirosis, one melioidosis, one invasive pneumococcal disease, two endemic typhus fever, two Lyme disease, two scrub typhus, one complicated varicella, eight severe complicated influenza, and two H7N9 influenza.

<sup>6</sup>The caseload of Hansen's disease and Creutzfeldt-Jakob disease were estimated based on diagnosis date. <sup>8</sup>Incidence rate indicates the number of new confirmed cases per 100,000 population.

#### Table 3 Number of confirmed cases of notifiable diseases — by month, 2014

Unit: Person

Unit: Person		1								1	1	1	
Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category I													
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza <sup>1</sup>	-	-	-	-	-	-							-
Category II													
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid Fever <sup>2</sup>	5	2	1	-	3	2	2	2	3	1	3	1	25
Dengue Fever <sup>2</sup>	24	17	15	18	25	111	395	991	2,282	5,515	4,975	1,364	15,732
Dengue Hemorrhagic Fever / Dengue Shock Syndrome	-	-	-	-	-	1	5	9	29	31	52	9	136
Meningococcal Meningitis	2	-	-	-	-	1	-	-	-	-	-	-	3
Paratyphoid Fever <sup>2</sup>	1	1	3	-	-	-	-	-	2	-	1	-	8
Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis <sup>3</sup>	3	1	4	2	-	6	8	2	1	-	1	1	29
Shigellosis <sup>2</sup>	12	11	14	12	16	11	8	8	7	13	5	15	132
Amoebiasis <sup>2</sup>	18	21	26	25	15	24	23	29	36	33	24	26	300
Malaria <sup>2</sup>													
Indigenous	-	-	-	-	-	-	-	-	-	-	-	-	-
Imported	-	1	1	2	1	1	3	-	3	4	1	2	19
Measles <sup>2</sup>	3	1	2	6	3	2	-	3	-	6	-	-	26
Acute Hepatitis A <sup>2</sup>	14	11	15	6	8	4	7	8	5	26	8	5	117
Enterohaemorrhagic E. coli Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome													
Hemorrhagic Fever with Renal Syndrome	-	1	-	-	-	-	-	-	-	-	-	1	2
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	1	2	-	1	-	-	-	-	4

Note: <sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H5N1 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including 19 typhoid fever, 240 dengue fever, eight paratyphoid fever, 117 shigellosis, 197 amoebiasis, 19 malaria, 18 measles, and 49 acute hepatitis A. <sup>3</sup>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.

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category II													
Rubella <sup>2</sup>	-	2	1	-	1	1	-	-	-	-	1	1	7
MDR-TB⁴	9	6	8	9	10	12	8	7	12	12	10	9	112
Chikungunya Fever <sup>2</sup>	1	-	2	1	-	1	-	1	-	-	1	-	7
West Nile Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-	-	-	-
Category III													
Pertussis <sup>2</sup>	-	1	7	5	9	6	6	11	9	6	7	11	78
Tetanus⁵	-	-	1	-	-	1	1	-	1	2	1	2	9
Japanese Encephalitis	-	-	-	-	-	10	3	2	-	3	-	-	18
Tuberculosis <sup>4</sup>	848	828	945	1,077	1,081	911	1,021	948	938	994	823	912	11,326
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis													
B <sup>2</sup>	6	8	7	11	9	12	17	9	12	6	15	8	120
С	3	12	18	18	19	17	12	17	20	30	16	23	205
D	-	-	-	-	-	-	1	-	-	-	-	-	1
E <sup>2</sup>	1	1	1	-	3	-	-	-	2	1	-	-	9
Unspecified	-	-	-	-	-	-	-	1	-	-	-	-	1
Mumps⁵	57	51	76	76	101	86	77	53	119	66	66	52	880
Legionnaires' Disease <sup>2</sup>	13	6	8	4	18	10	11	15	8	11	16	15	135
Invasive <i>Haemophilus Influenzae</i> Type b Infection	-	-	1	1	-	-	-	-	1	-	-	1	4
Syphilis <sup>6</sup>	493	397	550	662	575	613	659	593	645	644	580	575	6,986
Gonorrhea <sup>6</sup>	203	182	204	213	202	196	218	236	290	267	205	206	2,622
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	-	-	-	1	3	1	-	-	-	1	-	-	6
HIV Infection <sup>7</sup>	170	158	202	207	191	188	208	191	187	198	152	184	2,236
AIDS <sup>7</sup>	110	100	122	131	122	109	132	120	102	141	101	97	1,387

## Table 3 (Continued) Number of confirmed cases of notifiable diseases — by month, 2014 Unit: Person

Note:<sup>2</sup>The case amount in 2014 contained imported cases, including six rubella, seven chikungunya fever, one pertussis, three acute hepatitis B, four acute hepatitis E, and six legionnaires' disease.

<sup>4</sup>The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

<sup>5</sup>Calculation for tetanus and mumps were based on reported cases only.

<sup>6</sup>The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

<sup>7</sup>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, 2014
Unit: Pers	son

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category III													
Hansen's Disease <sup>6</sup>	1	1	1	-	2	1	1	1	1	-	-	-	9
Category IV													
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis <sup>2</sup>	5	1	3	1	3	16	8	20	13	15	7	6	98
Melioidosis <sup>2</sup>	3	3	2	-	1	2	4	8	4	4	3	3	37
Botulism	-	-	-	-	-	-	-	-	-	-	-	-	-
Invasive Pneumococcal Disease <sup>2</sup>	106	65	63	52	32	22	39	31	29	38	54	56	587
Q Fever	6	3	-	7	5	5	5	3	3	2	2	1	42
Endemic Typhus Fever <sup>2</sup>	-	1	1	2	6	-	3	3	2	1	2	-	21
Lyme Disease <sup>2</sup>	-	-	-	-	-	1	1	-	-	-	-	-	2
Tularemia	-	-	-	-	-	-	-	-	-	-	-	-	-
Scrub Typhus <sup>2</sup>	21	4	1	9	58	88	73	25	52	34	18	31	414
Complicated Varicella <sup>2</sup>	9	10	3	3	3	3	3	1	6	6	5	3	55
Toxoplasmosis	1	2	1	1	-	1	-	4	1	-	1	-	12
Severe Complicated Influenza <sup>2</sup>	463	564	310	107	84	75	61	18	25	5	4	5	1,721
Creutzfeldt-Jakob Disease <sup>6</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-
Brucellosis	-	-	-	-	-	-	-	-	-	-	-	-	-
Category V													
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Ebola Virus Disease	-	-	-	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome Coronavirus Infections	-	-	-	-	-	-	-	-	-	-	-	-	-
H7N9 Influenza <sup>1, 2</sup>	-	-	-	2	-	-							2
Novel Influenza A Virus Infections <sup>1</sup>							-	-	-	-	-	-	-

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H7N9 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including one leptospirosis, one melioidosis, one invasive pneumococcal disease, two endemic typhus fever, two Lyme disease, two scrub typhus, one complicated varicella, eight severe complicated influenza, and two H7N9 influenza.

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

#### Table 4 Number of confirmed cases and incidence<sup>8</sup> rate of notifiable diseases — by sex, 2014

Unit: Person

Disease	Ferr	ale	Ма	le	Sex no	t stated	Total		
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
Category I									
Smallpox	-	-	-	-	-	-	-	-	
Plague	-	-	-	-	-	-	-	-	
SARS	-	-	-	-	-	-	-	-	
Rabies	-	-	-	-	-	-	-	-	
H5N1 Influenza <sup>1</sup>	-	-	-	-	-	-	-	-	
Category II									
Diphtheria	-	-	-	-	-	-	-	-	
Typhoid Fever <sup>2</sup>	17	0.15	8	0.07	-	-	25	0.11	
Dengue Fever <sup>2</sup>	7,892	67.38	7,840	67.06	-	-	15,732	67.22	
Dengue Hemorrhagic Fever/ Dengue Shock Syndrome	69	0.59	67	0.57	-	-	136	0.58	
Meningococcal Meningitis	3	0.03	-	-	-	-	3	0.01	
Paratyphoid Fever <sup>2</sup>	3	0.03	5	0.04	-	-	8	0.03	
Poliomyelitis	-	-	-	-	-	-	-	-	
Acute Flaccid Paralysis <sup>3</sup>	12	0.10	17	0.15	-	-	29	0.12	
Shigellosis <sup>2</sup>	93	0.79	39	0.33	-	-	132	0.56	
Amoebiasis <sup>2</sup>	145	1.24	155	1.33	-	-	300	1.28	
Malaria <sup>2</sup>									
Indigenous	-	-	-	-	-	-	-	-	
Imported	4	0.03	15	0.13	-	-	19	0.08	
Measles <sup>2</sup>	11	0.09	15	0.13	-	-	26	0.11	
Acute Hepatitis A <sup>2</sup>	50	0.43	67	0.57	-	-	117	0.50	
Enterohaemorrhagic E. coli Infection	-	-	-	-	-	-	-	-	
Hantavirus Syndrome									
Hemorrhagic Fever with Renal Syndrome	-	-	2	0.02	-	-	2	0.01	
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	
Cholera	3	0.03	1	0.01	-	-	4	0.02	

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H5N1 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including 19 typhoid fever, 240 dengue fever, eight paratyphoid fever, 117 shigellosis, 197 amoebiasis, 19 malaria, 18 measles, and 49 acute hepatitis A.
<sup>3</sup>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 4 (Continued) Number of confirmed cases and incidence8 rate of notifiable diseases— by sex, 2014

Disease	Fem	ale	Ма	le	Sex not	stated	Total		
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
Category II									
Rubella <sup>2</sup>	1	0.01	6	0.05	-	-	7	0.03	
MDR-TB⁴	30	0.26	82	0.70	-	-	112	0.48	
Chikungunya Fever <sup>2</sup>	5	0.04	2	0.02	-	-	7	0.03	
West Nile Fever	-	-	-	-	-	-	-	-	
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	
Anthrax	-	-	-	-	-	-	-	-	
Category III									
Pertussis <sup>2</sup>	39	0.33	39	0.33	-	-	78	0.33	
Tetanus⁵	6	0.05	3	0.03	-	-	9	0.04	
Japanese Encephalitis	6	0.05	12	0.10	-	-	18	0.08	
Tuberculosis <sup>4</sup>	3,432	29.30	7,894	67.52	-	-	11,326	48.39	
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	
Acute Hepatitis									
B <sup>2</sup>	44	0.38	76	0.65	-	-	120	0.51	
С	70	0.60	135	1.15	-	-	205	0.88	
D	-	-	1	0.01	-	-	1	0.00	
E <sup>2</sup>	-	-	9	0.08	-	-	9	0.04	
Unspecified	1	0.01	-	-	-	-	1	0.00	
Mumps⁵	358	3.06	522	4.46	-	-	880	3.76	
Legionnaires' Disease <sup>2</sup>	31	0.26	104	0.89	-	-	135	0.58	
Invasive Haemophilus Influenzae Type b Infection	2	0.02	2	0.02	-	-	4	0.02	
Syphilis <sup>6</sup>	1,607	13.72	5,379	46.01	-	-	6,986	29.85	
Gonorrhea <sup>6</sup>	164	1.40	2,458	21.02	-	-	2,622	11.20	
Neonatal Tetanus	-	-	-	-	-	-	-	-	
Enteroviruses Infection with Severe Complications	1	0.01	5	0.04	-	-	6	0.03	
HIV Infection <sup>7</sup>	60	0.51	2,176	18.61	-	-	2,236	9.55	
AIDS <sup>7</sup>	64	0.55	1,323	11.32	-	-	1,387	5.93	

Unit: Person

Note:<sup>2</sup>The case amount in 2014 contained imported cases, including six rubella, seven chikungunya fever, one pertussis, three acute hepatitis B, four acute hepatitis E, and six legionnaires' disease.

<sup>4</sup>The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

<sup>5</sup>Calculation for tetanus and mumps were based on reported cases only.

<sup>6</sup>The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

### Table 4 (Continued) Number of confirmed cases and incidence8 rate of notifiable diseases— by sex, 2014

Diagona	Fem	ale	Ma	le	Sex no	t stated	Total		
Disease	No.	Rate	No.	Rate	No.	Rate	No.	Rate	
Category III									
Hansen's Disease <sup>6</sup>	5	0.04	4	0.03	-	-	9	0.04	
Category IV									
Herpesvirus B Infection	-	-	-	-	-	-	-	-	
Leptospirosis <sup>2</sup>	9	0.08	89	0.76	-	-	98	0.42	
Melioidosis <sup>2</sup>	2	0.02	35	0.30	-	-	37	0.16	
Botulism	-	-	-	-	-	-	-	-	
Invasive Pneumococcal Disease <sup>2</sup>	220	1.88	367	3.14	-	-	587	2.51	
Q Fever	5	0.04	37	0.32	-	-	42	0.18	
Endemic Typhus Fever <sup>2</sup>	4	0.03	17	0.15	-	-	21	0.09	
Lyme Disease <sup>2</sup>	1	0.01	1	0.01	-	-	2	0.01	
Tularemia	-	-	-	-	-	-	-	-	
Scrub Typhus <sup>2</sup>	157	1.34	257	2.20	-	-	414	1.77	
Complicated Varicella <sup>2</sup>	27	0.23	28	0.24	-	-	55	0.24	
Toxoplasmosis	6	0.05	6	0.05	-	-	12	0.05	
Severe Complicated Influenza <sup>2</sup>	736	6.28	985	8.43	-	-	1,721	7.35	
Creutzfeldt-Jakob Disease <sup>6</sup>	-	-	-	-	-	-	-	-	
Brucellosis	-	-	-	-	-	-	-	-	
Category V									
Rift Valley Fever	-	-	-	-	-	-	-	-	
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	
Yellow Fever	-	-	-	-	-	-	-	-	
Ebola Virus Disease	-	-	-	-	-	-	-	-	
Lassa Fever	-	-	-	-	-	-	-	-	
Middle East Respiratory Syndrome Coronavirus Infections	-	-	-	-	-	-	-	-	
H7N9 Influenza <sup>1, 2</sup>	1	0.01	1	0.01	-	-	2	0.01	
Novel Influenza A Virus Infections <sup>1</sup>	-	-	-	-	-	-	-	-	

Unit: Person

Note:<sup>1</sup>H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H7N9 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including one leptospirosis, one melioidosis, one invasive pneumococcal disease, two endemic typhus fever, two Lyme disease, two scrub typhus, one complicated varicella, eight severe complicated influenza, and two H7N9 influenza.

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

Table 5	Number of confirmed cases of notifiable diseases — by year, 2005-2014
Unit: Perso	n

Offic. 1 Cloon										
Disease	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Category I										
Smallpox		-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	1	1	-
H5N1 Influenza <sup>1</sup>	-	-	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever <sup>2</sup>	35	43	34	33	80	33	49	26	19	25
Dengue Fever <sup>2</sup>	306	1,074	2,179	714	1,052	1,896	1,702	1,478	860	15,732
Dengue Hemorrhagic Fever/ Dengue Shock Syndrome	5	19	12	5	11	21	22	36	16	136
Meningococcal Meningitis	20	13	20	19	2	7	5	6	6	3
Paratyphoid Fever <sup>2</sup>	13	10	6	11	6	12	6	8	9	8
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis <sup>3</sup>	61	66	51	74	45	49	45	51	25	29
Shigellosis <sup>2</sup>	174	139	246	90	91	172	203	155	155	132
Amoebiasis <sup>2</sup>	120	125	145	227	190	262	256	258	270	300
Malaria <sup>2</sup>										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	26	26	13	18	11	21	17	12	13	19
Measles <sup>2</sup>	7	4	10	16	48	12	33	9	8	26
Acute Hepatitis A <sup>2</sup>	257	189	203	236	234	110	104	99	139	117
Enterohaemorrhagic <i>E. coli</i> Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	-	3	1	1	-	1	-	1	-	2
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	2	1	-	1	3	5	3	5	7	4

Note:<sup>1</sup> H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 influenza had been suspended and been removed from list since then. The amount of H5N1 influenza listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including 19 typhoid fever, 240 dengue fever, eight paratyphoid fever, 117 shigellosis, 197 amoebiasis, 19 malaria, 18 measles, and 49 acute hepatitis A.

<sup>3</sup>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, Congenital Rubella Syndrome, Poliomyelitis and Neonatal Tetanus" in 1992. AFP cases aged 15 years and above had been excluded since 2005.

# Table 5 (Continued) Number of confirmed cases of notifiable diseases — by year, 2005-2014 Unit: Person

Disease	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Category II										
Rubella <sup>2</sup>	7	6	54	33	23	21	60	12	7	7
MDR-TB <sup>4,9</sup>			19	159	176	156	154	140	129	112
Chikungunya Fever <sup>2,9</sup>			2	9	9	13	1	5	29	7
West Nile Fever		-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis <sup>2</sup>	38	14	41	41	90	61	77	54	51	78
Tetanus⁵	16	14	10	18	12	12	10	17	24	9
Japanese Encephalitis	35	29	37	17	18	33	22	32	16	18
Tuberculosis <sup>4</sup>	16,472	15,378	14,480	14,265	13,336	13,237	12,634	12,338	11,528	11,326
Congenital Rubella Syndrome	-	-	1	1	-	-	-	-	-	-
Acute Hepatitis										
B <sup>2</sup>	321	245	202	231	152	172	163	97	97	120
С	172	154	153	124	131	41	34	34	10	205
D	4	5	1	4	1	1	-	-	-	1
E <sup>2</sup>	21	11	12	14	9	7	12	9	9	9
Unspecified	10	9	10	22	18	13	10	10	5	1
Mumps⁵	1,158	971	1,208	1,145	1,068	1,125	1,171	1,061	1,170	880
Legionnaires' Disease <sup>2</sup>	38	56	56	69	84	102	97	88	115	135
Invasive <i>Haemophilus Influenzae</i> Type b Infection	12	16	16	12	14	12	9	3	10	4
Syphilis <sup>6</sup>	5,305	5,808	5,798	6,526	6,668	6,482	6,372	5,896	6,346	6,986
Gonorrhea <sup>6</sup>	1,515	1,437	1,442	1,621	2,137	2,265	1,978	1,983	2,155	2,622
Neonatal Tetanus <sup>9</sup>			-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	142	11	12	373	29	16	59	153	12	6
HIV Infection <sup>7</sup>	3,403	2,938	1,935	1,752	1,648	1,796	1,967	2,224	2,244	2,236
AIDS <sup>7</sup>	506	579	1,061	849	930	1,087	1,075	1,280	1,430	1,387

Note:<sup>2</sup>The case amount in 2014 contained imported cases, including six rubella, seven chikungunya fever, one pertussis, three acute hepatitis B, four acute hepatitis E, and six legionnaires' disease.

<sup>4</sup>The caseload of MDR-TB and tuberculosis were calculated based on CDC's registration date and notification date respectively.

<sup>5</sup>Calculation for tetanus and mumps were based on reported cases only.

<sup>6</sup>The caseload of syphilis and gonorrhea were estimated based on diagnosis date.

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

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

#### Table 5 (Continued) Number of confirmed cases of notifiable diseases — by year, 2005-2014

Unit: Person

Disease	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Category III										
Hansen's Disease <sup>6</sup>	9	11	12	8	7	5	5	13	7	9
Category IV										
Herpesvirus B Infection <sup>9</sup>			-	-	-	-	-	-	-	-
Leptospirosis <sup>2,9</sup>			10	47	203	77	55	91	82	98
Melioidosis <sup>2,9</sup>			4	45	44	45	45	29	19	37
Botulism <sup>9</sup>			4	11	1	11	6	-	1	-
Invasive Pneumococcal Disease <sup>2,9</sup>			169	805	690	737	837	749	625	587
Q Fever <sup>9</sup>			17	91	89	89	35	53	48	42
Endemic Typhus Fever <sup>2,9</sup>			6	31	40	42	26	37	27	21
Lyme Disease <sup>2,9</sup>			1	2	-	-	-	1	-	2
Tularemia <sup>9</sup>			-	-	-	-	1	-	-	-
Scrub Typhus <sup>2</sup>	462	384	510	492	353	402	322	460	538	414
Complicated Varicella <sup>2,10</sup>										55
Toxoplasmosis <sup>9</sup>			2	3	7	5	5	12	15	12
Severe Complicated Influenza <sup>2,11</sup>	33	25	26	22	1,134	882	1,481	1,595	965	1,721
Creutzfeldt-Jakob Disease <sup>6,9</sup>			-	-	3	-	-	-	-	-
Brucellosis <sup>12</sup>								-	-	-
Category V										
Rift Valley Fever		-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever		-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Virus Disease	-	-	-	-	-	-	-	-	-	-
Lassa Fever		-	-	-	-	-	-	-	-	-
Middle East Respiratory Syndrome <sup>13</sup>										
Coronavirus Infections								-	-	-
H7N9 Influenza <sup>1, 2</sup>									2	2
Novel Influenza A Virus Infections <sup>1</sup>										-

Note:<sup>1</sup>H5N1, H7N9 and other novel influenza infections were categorized as "novel influenza A virus infections" and have been listed in the Fifth-Category Notifiable Diseases since July 1, 2014. The statistics of H5N1 and H7N9 Influenza had been suspended and been removed from list since then. The amount of H7N9 influenza in 2014 listed above was accumulated as of June 30, 2014.

<sup>2</sup>The case amount in 2014 contained imported cases, including one leptospirosis, one melioidosis, one invasive pneumococcal disease, two endemic typhus fever, two Lyme disease, two scrub typhus, one complicated varicella, eight severe complicated influenza, and two H7N9 influenza.

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

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

<sup>10</sup> Varicella" was revised the notifiable condition into "complicated varicella", and has been validated since January 1, 2014.

<sup>11</sup>"Complicated influenza" was revised the notifiable condition into "severe complicated influenza", and has been validated since August 1, 2014.

<sup>12</sup>Brucellosis has belonged to the list of Category IV Notifiable Disease since February 7, 2012.

<sup>13</sup>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.

		2013					2014			
Locality	N			N	A		<=24	hours	>24	hours
	No.	Average	Median	No.	Average	Median	No.	%	No.	%
Total	6,397	0.3	0	28,646	0.3	0	28,613	99.9	33	0.1
Taipei City	939	0.3	0	878	0.3	0	877	99.9	1	0.1
New Taipei City	511	0.2	0	475	0.2	0	475	100.0	-	
Taichung City	467	0.3	0	521	0.2	0	521	100.0	-	
Tainan City	575	0.2	0	824	0.2	0	824	100.0	-	
Kaohsiung City	1,340	0.4	0	23,685	0.3	0	23,685	100.0	-	
Yilan County	61	0.2	0	58	0.2	0	58	100.0	-	
Taoyuan City	662	0.4	0	607	0.3	0	576	94.9	31	5.1
Hsinchu County	20	0.2	0	16	0.0	0	16	100.0	-	
Miaoli County	62	0.1	0	74	0.0	0	74	100.0	-	
Changhua County	201	0.1	0	195	0.1	0	195	100.0	-	
Nantou County	30	0.1	0	41	0.1	0	41	100.0	-	
Yunlin County	54	0.1	0	59	0.3	0	59	100.0	-	
Chiayi County	18	0.2	0	22	0.1	0	22	100.0	-	
Pingtung County	953	0.3	0	655	0.3	0	655	100.0	-	
Taitung County	38	0.4	0	49	0.4	0	49	100.0	-	
Hualien County	229	0.2	0	224	0.2	0	223	99.6	1	0.4
Penghu County	28	0.2	0	61	0.2	0	61	100.0	-	
Keelung City	37	0.1	0	37	0.2	0	37	100.0	-	
Hsinchu City	115	0.4	0	82	0.1	0	82	100.0	-	
Chiayi City	46	0.1	0	79	0.1	0	79	100.0	-	
Kinmen County	9	0.4	0	3	0.0	0	3	100.0	-	
Lienchiang County	2	0.5	0	1	0.0	0	1	100.0	-	

# Table 6 Analysis of time intervals between diagnosis and reporting for notifiable diseases— by locality, 2014

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

		2013					2014			
Locality			N.4 11				<=24	hours	>24	hours
	No.	Average	Median	No.	Average	Median	No.	%	No.	%
Total	6,397	0.0	0	28,646	0.0	0	28,646	100.0	-	
Taipei City	939	0.0	0	878	0.0	0	878	100.0	-	
New Taipei City	511	0.0	0	475	0.0	0	475	100.0	-	
Taichung City	467	0.0	0	521	0.0	0	521	100.0	-	
Tainan City	575	0.0	0	824	0.0	0	824	100.0	-	
Kaohsiung City	1,340	0.0	0	23,685	0.0	0	23,685	100.0	-	
Yilan County	61	0.0	0	58	0.0	0	58	100.0	-	
Taoyuan City	662	0.0	0	607	0.0	0	607	100.0	-	
Hsinchu County	20	0.0	0	16	0.0	0	16	100.0	-	
Miaoli County	62	0.0	0	74	0.0	0	74	100.0	-	
Changhua County	201	0.0	0	195	0.0	0	195	100.0	-	
Nantou County	30	0.0	0	41	0.0	0	41	100.0	-	
Yunlin County	54	0.0	0	59	0.0	0	59	100.0	-	
Chiayi County	18	0.0	0	22	0.0	0	22	100.0	-	
Pingtung County	953	0.0	0	655	0.0	0	655	100.0	-	
Taitung County	38	0.0	0	49	0.0	0	49	100.0	-	
Hualien County	229	0.0	0	224	0.0	0	224	100.0	-	
Penghu County	28	0.0	0	61	0.0	0	61	100.0	-	
Keelung City	37	0.0	0	37	0.0	0	37	100.0	-	
Hsinchu City	115	0.0	0	82	0.0	0	82	100.0	-	
Chiayi City	46	0.0	0	79	0.0	0	79	100.0	-	
Kinmen County	9	0.1	0	3	0.0	0	3	100.0	-	
Lienchiang County	2	0.0	0	1	0.0	0	1	100.0	-	

### Table 7 Analysis of time intervals between reporting and reports received from local health bureaus for notifiable diseases — by locality, 2014

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

Table 8	Analysis of time intervals between reports received from local health bureaus to
	Taiwan CDC for notifiable diseases — by locality, 2014

		2013					2014			
Locality	Na	Average	Madian	Na	A	Madian	<=24	hours	>24 h	ours
	No.	Average	Median	No.	Average	Median	No.	%	No.	%
Total	6,397	0.0	0	28,646	0.0	0	28,644	100.0	2	0.0
Taipei City	939	0.0	0	878	0.0	0	878	100.0	-	-
New Taipei City	511	0.0	0	475	0.0	0	475	100.0	-	-
Taichung City	467	0.0	0	521	0.0	0	521	100.0	-	-
Tainan City	575	0.0	0	824	0.0	0	824	100.0	-	-
Kaohsiung City	1,340	0.0	0	23,685	0.0	0	23,685	100.0	-	-
Yilan County	61	0.0	0	58	0.0	0	58	100.0	-	-
Taoyuan City	662	0.0	0	607	0.0	0	607	100.0	-	-
Hsinchu County	20	0.0	0	16	0.0	0	16	100.0	-	-
Miaoli County	62	0.0	0	74	0.0	0	74	100.0	-	-
Changhua County	201	0.0	0	195	0.0	0	195	100.0	-	-
Nantou County	30	0.0	0	41	0.0	0	41	100.0	-	-
Yunlin County	54	0.0	0	59	0.0	0	59	100.0	-	-
Chiayi County	18	0.0	0	22	0.0	0	22	100.0	-	-
Pingtung County	953	0.0	0	655	0.0	0	654	99.8	1	0.2
Taitung County	38	0.0	0	49	0.0	0	49	100.0	-	-
Hualien County	229	0.0	0	224	0.0	0	224	100.0	-	-
Penghu County	28	0.0	0	61	0.0	0	61	100.0	-	-
Keelung City	37	0.0	0	37	0.1	0	36	97.3	1	2.7
Hsinchu City	115	0.0	0	82	0.0	0	82	100.0	-	-
Chiayi City	46	0.0	0	79	0.0	0	79	100.0	-	-
Kinmen County	9	0.0	0	3	0.0	0	3	100.0	-	-
Lienchiang County	2	0.0	0	1	0.0	0	1	100.0	-	-

#### Unit: Dav

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

## Table 9 Cases of Acute Flaccid Paralysis, Neonatal Tetanus, Congenital Rubella Syndrome, and Measles Eradication Program — by Locality, 2014

I Init <sup>.</sup>	Person
UTIIL.	

			Total			А	cute fla	accid p	oaralysis	6		Neon	atal te	tanus	
Locality	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)
Total	81	246	235	95.5	62	17	32	31	96.9	29	1	-	-	-	_
Taipei City	5	64	64	100.0	18	1	6	6	100.0	6	-	-	-	-	-
New Taipei City	9	29	29	100.0	3	1	2	2	100.0	1	1	-	-	-	-
Taichung City	4	35	35	100.0	13	-	9	9	100.0	8	-	-	-	-	-
Tainan City	6	9	9	100.0	6	3	4	4	100.0	4	-	-	-	-	-
Kaohsiung City	31	35	30	85.7	9	7	8	7	87.5	7	-	-	-	-	-
Yilan County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taoyuan City	15	28	28	100.0	5	3	3	3	100.0	3	-	-	-	-	-
Hsinchu County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miaoli County	-	2	2	100.0	-	-	-	-	-	-	-	-	-	-	-
Changhua County	3	5	5	100.0	-	1	-	-	-	-	-	-	-	-	-
Nantou County	-	15	15	100.0	4	-	-	-	-	-	-	-	-	-	-
Yunlin County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiayi County	1	1	1	100.0	-	-	-	-	-	-	-	-	-	-	-
Pingtung County	-	4	-	0.0	2	-	-	-	-	-	-	-	-	-	-
Taitung County	2	1	-	0.0	-	1	-	-	-	-	-	-	-	-	-
Hualien County	1	5	5	100.0	1	-	-	-	-	-	-	-	-	-	-
Penghu County	2	2	1	50.0	-	-	-	-	-	-	-	-	-	-	-
Keelung City	-	4	4	100.0	-	-	-	-	-	-	-	-	-	-	-
Hsinchu City	2	4	4	100.0	1	-	-	-	-	-	-	-	-	-	-
Chiayi City	-	2	2	100.0	-	-	-	-	-	-	-	-	-	-	-
Kinmen County	-	1	1	100.0	-	-	-	-	-	-	-	-	-	-	-
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, 2014

	Con	genital	rubel	a syndr	ome		Ν	leasle	S			F	Rubella	a	
Locality	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)
Total	-	-	-	-	-	39	136	130	95.6	26	24	78	74	94.9	7
Taipei City	-	-	-	-	-	3	35	35	100.0	9	1	23	23	100.0	3
New Taipei City	-	-	-	-	-	5	19	19	100.0	1	2	8	8	100.0	1
Taichung City	-	-	-	-	-	1	16	16	100.0	4	3	10	10	100.0	1
Tainan City	-	-	-	-	-	-	1	1	100.0	1	3	4	4	100.0	1
Kaohsiung City	-	-	-	-	-	12	13	11	84.6	2	12	14	12	85.7	-
Yilan County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Taoyuan City	-	-	-	-	-	9	19	19	100.0	2	3	6	6	100.0	-
Hsinchu County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miaoli County	-	-	-	-	-	-	1	1	100.0	-	-	1	1	100.0	-
Changhua County	-	-	-	-	-	2	3	3	100.0	-	-	2	2	100.0	-
Nantou County	-	-	-	-	-	-	12	12	100.0	4	-	3	3	100.0	-
Yunlin County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chiayi County	-	-	-	-	-	1	1	1	100.0	-	-	-	-	-	-
Pingtung County	-	-	-	-	-	-	2	-	0.0	1	-	2	-	0.0	1
Taitung County	-	-	-	-	-	1	1	-	0.0	-	-	-	-	-	-
Hualien County	-	-	-	-	-	1	2	2	100.0	1	-	3	3	100.0	-
Penghu County	-	-	-	-	-	2	2	1	50.0	-	-	-	-	-	-
Keelung City	-	-	-	-	-	-	4	4	100.0	-	-	-	-	-	-
Hsinchu City	-	-	-	-	-	2	2	2	100.0	1	-	2	2	100.0	-
Chiayi City	-	-	-	-	-	-	2	2	100.0	-	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	1	1	100.0	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Unit: Person

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/citie	Table 10	ole 10 National Imm	unization coverage	) — I	by counties/citie
---	----------	---------------------	--------------------	-------	-------------------

Unit: %

Unit: %									
Vaccines		BCG			(i	5 i including DT	n1 , DTaP, 6in	1)	
Birth cohort		2013			2013		20	01107~2012	06
Dose		single dose			3rd dose			4th dose	
Locality	Target population	Vaccinated population		Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	197,812	194,889	98.52	197,812	193,682	97.91	216,798	209,130	96.46
New Taipei City	32,935	32,287	98.03	32,935	32,024	97.23	34,763	33,451	96.23
Taipei City	28,619	27,996	97.82	28,619	28,019	97.90	30,959	29,673	95.85
Taichung City	25,236	24,869	98.55	25,236	24,762	98.12	27,984	27,146	97.00
Tainan City	14,620	14,456	98.88	14,620	14,344	98.11	16,645	16,121	96.85
Kaohsiung City	21,222	20,856	98.28	21,222	20,742	97.74	23,375	22,303	95.41
Yilan County	3,392	3,355	98.91	3,392	3,344	98.58	3,739	3,648	97.57
Taoyuan City	18,180	18,000	99.01	18,180	17,759	97.68	20,350	19,677	96.69
Hsinchu County	5,576	5,523	99.05	5,576	5,489	98.44	6,556	6,317	96.35
Miaoli County	5,411	5,367	99.19	5,411	5,327	98.45	5,619	5,455	97.08
Changhua County	10,620	10,519	99.05	10,620	10,494	98.81	11,717	11,475	97.93
Nantou County	3,305	3,278	99.18	3,305	3,235	97.88	3,692	3,547	96.07
Yunlin County	4,835	4,794	99.15	4,835	4,777	98.80	5,341	5,197	97.30
Chiayi County	3,022	3,002	99.34	3,022	2,980	98.61	3,338	3,272	98.02
Pingtung County	5,136	5,077	98.85	5,136	5,036	98.05	5,904	5,697	96.49
Taitung County	1,663	1,655	99.52	1,663	1,632	98.14	1,727	1,663	96.29
Hualien County	2,678	2,654	99.10	2,678	2,594	96.86	2,669	2,523	94.53
Penghu County	897	889	99.11	897	886	98.77	897	882	98.33
Keelung City	2,091	2,066	98.80	2,091	2,050	98.04	2,306	2,229	96.66
Hsinchu City	4,990	4,910	98.40	4,990	4,856	97.31	5,580	5,334	95.59
Chiayi City	1,974	1,949	98.73	1,974	1,939	98.23	2,304	2,228	96.70
Kinmen County	1,260	1,237	98.17	1,260	1,243	98.65	1,200	1,167	97.25
Lienchiang County	150	150	100.00	150	150	100.00	133	125	93.98

Note 1. Source:National Immunization Information System.

2. Vaccination period: July 2011 to December 2014.

Table 10	(Continued) Na	nal Immunization coverage	—	by counties/cities
----------	----------------	---------------------------	---	--------------------

Unit: %

Unit: %													
Vaccines			Нера	titis B				Varicella		MMR			
Birth cohort		2013			2013			2012		2012			
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	197,812	195,021	98.59	197,812	194,019	98.08	239,045	234,601	98.14	239,045	235,140	98.37	
New Taipei City	32,935	32,336	98.18	32,935	32,102	97.47	38,834	38,063	98.01	38,834	38,165	98.28	
Taipei City	28,619	28,247	98.70	28,619	28,049	98.01	34,024	33,302	97.88	34,024	33,401	98.17	
Taichung City	25,236	24,899	98.66	25,236	24,811	98.32	30,948	30,441	98.36	30,948	30,491	98.52	
Tainan City	14,620	14,355	98.19	14,620	14,365	98.26	18,587	18,321	98.57	18,587	18,341	98.68	
Kaohsiung City	21,222	20,870	98.34	21,222	20,786	97.95	25,714	25,166	97.87	25,714	25,204	98.02	
Yilan County	3,392	3,370	99.35	3,392	3,342	98.53	3,921	3,862	98.50	3,921	3,872	98.75	
Taoyuan City	18,180	18,010	99.06	18,180	17,798	97.90	22,126	21,647	97.84	22,126	21,718	98.16	
Hsinchu County	5,576	5,514	98.89	5,576	5,497	98.58	6,999	6,862	98.04	6,999	6,880	98.30	
Miaoli County	5,411	5,366	99.17	5,411	5,334	98.58	6,285	6,202	98.68	6,285	6,215	98.89	
Changhua County	10,620	10,532	99.17	10,620	10,505	98.92	12,991	12,826	98.73	12,991	12,869	99.06	
Nantou County	3,305	3,255	98.49	3,305	3,238	97.97	4,057	3,979	98.08	4,057	3,999	98.57	
Yunlin County	4,835	4,791	99.09	4,835	4,779	98.84	6,033	5,947	98.57	6,033	5,951	98.64	
Chiayi County	3,022	2,988	98.87	3,022	2,985	98.78	3,745	3,712	99.12	3,745	3,722	99.39	
Pingtung County	5,136	5,075	98.81	5,136	5,047	98.27	6,503	6,383	98.15	6,503	6,388	98.23	
Taitung County	1,663	1,657	99.64	1,663	1,637	98.44	1,875	1,844	98.35	1,875	1,849	98.61	
Hualien County	2,678	2,638	98.51	2,678	2,605	97.27	2,830	2,765	97.70	2,830	2,773	97.99	
Penghu County	897	891	99.33	897	883	98.44	984	977	99.29	984	978	99.39	
Keelung City	2,091	2,069	98.95	2,091	2,060	98.52	2,551	2,504	98.16	2,551	2,510	98.39	
Hsinchu City	4,990	4,874	97.68	4,990	4,858	97.35	6,096	5,934	97.34	6,096	5,943	97.49	
Chiayi City	1,974	1,891	95.80	1,974	1,943	98.43	2,418	2,363	97.73	2,418	2,369	97.97	
Kinmen County	1,260	1,244	98.73	1,260	1,245	98.81	1,382	1,360	98.41	1,382	1,362	98.55	
Lienchiang County	150	149	99.33	150	150	100.00	142	141	99.30	142	140	98.59	

Note 1. Source:National Immunization Information System.

2. Vaccination period: July 2011 to December 2014.

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

Unit: %

Unit: %						1					
Vaccines	JE										
Birth cohort		2012			2011						
Birtir conort		2nd dose			3rd dose						
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage					
Total	239,045	230,837	96.57	202,520	187,904	92.78					
New Taipei City	38,834	37,573	96.75	32,347	29,175	90.19					
Taipei City	34,024	32,663	96.00	29,127	27,254	93.57					
Taichung City	30,948	29,920	96.68	26,043	24,187	92.87					
Tainan City	18,587	18,015	96.92	15,256	14,293	93.69					
Kaohsiung City	25,714	24,596	95.65	21,619	19,828	91.72					
Yilan County	3,921	3,835	97.81	3,470	3,337	96.17					
Taoyuan City	22,126	21,386	96.66	19,640	18,456	93.97					
Hsinchu County	6,999	6,731	96.17	6,134	5,701	92.94					
Miaoli County	6,285	6,105	97.14	4,983	4,681	93.94					
Changhua County	12,991	12,675	97.57	10,871	10,380	95.48					
Nantou County	4,057	3,902	96.18	3,512	3,222	91.74					
Yunlin County	6,033	5,891	97.65	5,066	4,812	94.99					
Chiayi County	3,745	3,680	98.26	3,157	2,961	93.79					
Pingtung County	6,503	6,303	96.92	5,483	5,085	92.74					
Taitung County	1,875	1,827	97.44	1,694	1,567	92.50					
Hualien County	2,830	2,684	94.84	2,558	2,330	91.09					
Penghu County	984	967	98.27	779	753	96.66					
Keelung City	2,551	2,456	96.28	2,152	2,036	94.61					
Hsinchu City	6,096	5,821	95.49	5,230	4,718	90.21					
Chiayi City	2,418	2,325	96.15	2,226	2,015	90.52					
Kinmen County	1,382	1,346	97.40	1,048	993	94.75					
Lienchiang County	142	136	95.77	125	120	96.00					

Note 1. Source:National Immunization Information System.

2. Vaccination period: January 2011 to December 2014.

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

Unit: %	1	•	u) National									
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	205,165	196,009	95.54	205,350	199,285	97.05	205,457	198,521	96.62			
New Taipei City	36,637	34,399	93.89	36,660	35,340	96.40	36,660	34,946	95.32			
Taipei City	19,679	19,078	96.95	19,679	19,216	97.65	19,679	19,175	97.44			
Taichung City	25,983	24,325	93.62	25,987	25,214	97.03	26,081	25,057	96.07			
Tainan City	15,180	14,671	96.65	15,152	14,768	97.47	15,153	14,812	97.75			
Kaohsiung City	22,528	21,274	94.43	22,160	21,131	95.36	22,177	21,117	95.22			
Yilan County	3,617	3,472	95.99	3,617	3,502	96.82	3,617	3,496	96.65			
Taoyuan City	20,868	19,981	95.75	20,869	20,208	96.83	20,869	20,181	96.70			
Hsinchu County	6,059	5,994	98.93	6,739	6,688	99.24	6,739	6,670	98.98			
Miaoli County	5,711	5,497	96.25	5,710	5,603	98.13	5,709	5,561	97.41			
Changhua County	11,146	10,982	98.53	11,126	11,044	99.26	11,126	11,028	99.12			
Nantou County	4,017	3,923	97.66	3,996	3,912	97.90	3,996	3,926	98.25			
Yunlin County	5,810	5,759	99.12	5,803	5,731	98.76	5,803	5,732	98.78			
Chiayi County	3,192	3,156	98.87	3,509	3,472	98.95	3,509	3,473	98.97			
Pingtung County	6,498	6,027	92.75	6,498	6,198	95.38	6,498	6,172	94.98			
Taitung County	3,936	3,502	88.97	3,900	3,632	93.13	3,900	3,627	93.00			
Hualien County	2,638	2,472	93.71	2,633	2,540	96.47	2,633	2,545	96.66			
Penghu County	640	640	100.00	640	640	100.00	640	640	100.00			
Keelung City	2,907	2,783	95.73	2,659	2,578	96.95	2,648	2,532	95.62			
Hsinchu City	4,850	4,848	99.96	4,850	4,750	97.94	4,850	4,742	97.77			
Chiayi City	2,647	2,606	98.45	2,543	2,498	98.23	2,546	2,465	96.82			
Kinmen County	598	596	99.67	598	598	100.00	598	598	100.00			
Lienchiang County	24	24	100.00	22	22	100.00	26	26	100.00			

Note 1. Source:National Immunization Information System. 2. Vaccination period: September 2013 to June 2014

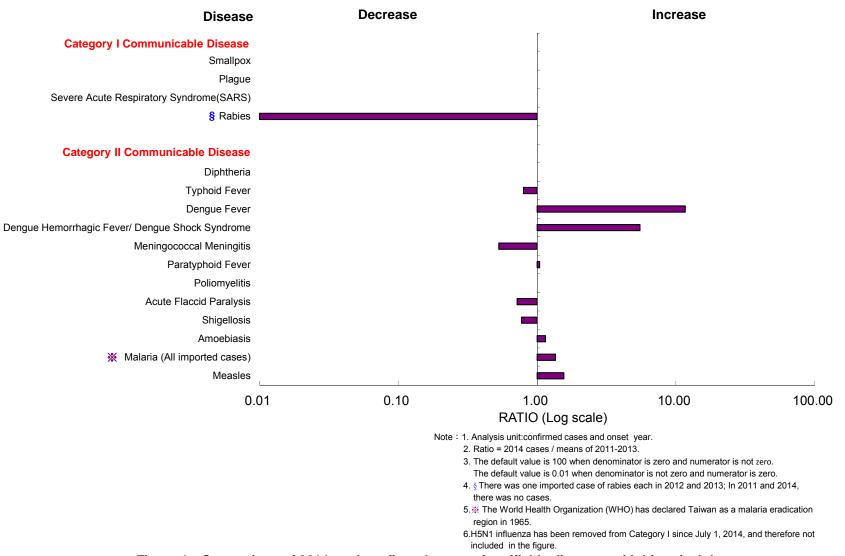


Figure 1 Comparison of 2014 total confirmed cases of notifiable diseases with historical data

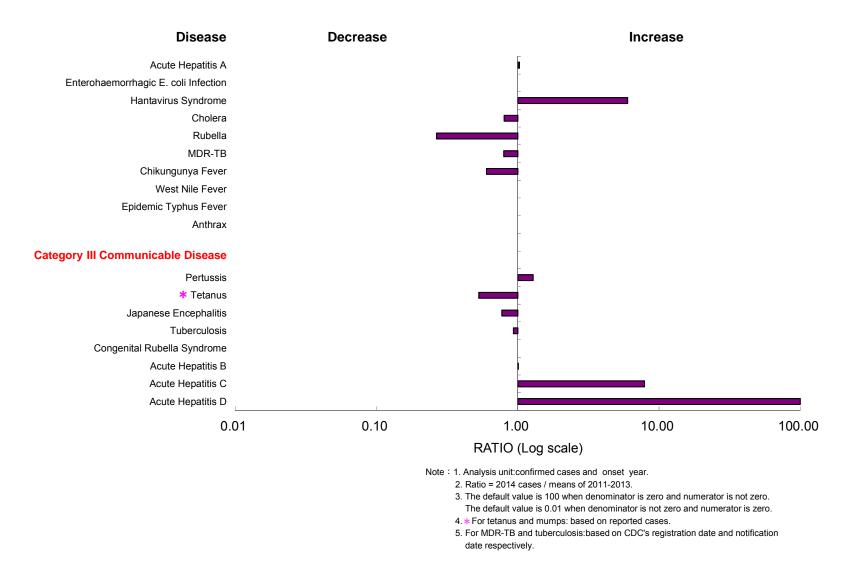


Figure 1 (Continued) Comparison of 2014 total confirmed cases of notifiable diseases with historical data

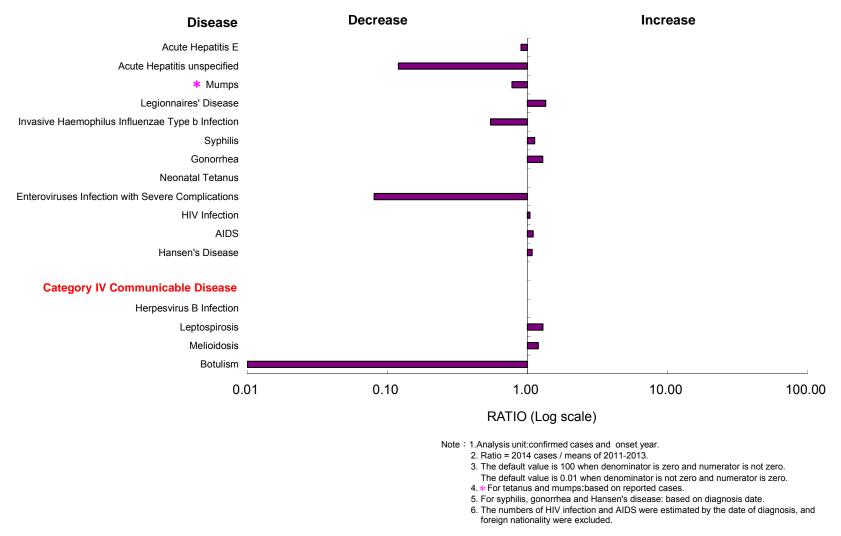


Figure 1 (Continued) Comparison of 2014 total confirmed cases of notifiable diseases with historical data

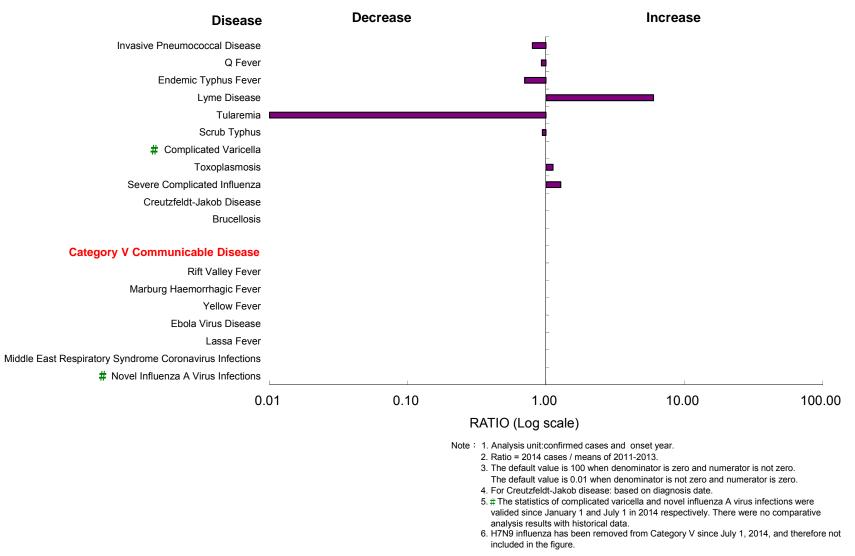


Figure 1 (Continued) Comparison of 2014 total confirmed cases of notifiable diseases with historical data

# PART II

# Specific Surveillance Systems

 $\odot\,$  Abbreviations and Symbols Used in Table

- No reported cases.
- ... Not under surveillance.

# TNosocomial 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 System) 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 analytical 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 440 hospitals are reporting during 2014. 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 2014.
- 2. Distribution of HAI rates by type of location in the ICUs of medical centers and regional hospitals in 2014.
- 3. Distribution of device-associated infection rates in the ICUs of medical centers and regional hospitals in 2014.
- 4. Distribution of major sites of HAI in ICU patients from medical centers and regional hospitals in 2014.
- 5. Common pathogens of HAI for patients in the ICUs of medical centers in 2014.
- 6. Common pathogens of HAI for patients in the ICUs of regional hospitals in 2014.
- 7. Antimicrobial resistance proportions of selected pathogens of HAI in the ICUs of medical centers and regional hospitals in 2014.

#### V. Surveillance method and main results

All the analytical results in this report were derived from TNIS database. In 2014, there were 20 medical centers(199 ICU units) and 83 regional hospitals(273 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 2015/08/05). 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 5,332 episodes of HAI events occurred during 773,761 patient-days in the ICUs of 20 medical centers, the rate of infections was 6.9‰. However, in the ICUs of the 83 regional hospitals, there were 4,611 episodes of HAI events occurred during 875,884 patient-days, the rate of infections was 5.3‰. The HAI rates of ICUs were higher in medical centers than those in regional hospitals by corresponding types of ICU. The

infection rates were highest in surgical ICU for both medical centers (8.4‰) and 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 pooled mean of catheter-associated urinary tract infection (CAUTI) rates was 3.8‰ in medical centers and 2.8‰ in regional hospitals, and the pooled mean of central line-associated bloodstream infection (CLABSI) rates were 4.5‰ and 3.1‰ respectively, the rate of CAUTI and the rate of CLABSI in ICUs of medical centers are higher than those in regional hospitals; the pooled mean of ventilator-associated pneumonia (VAP) rates in regional hospitals is higher than that in medical centers, which are 1.2‰ and 0.9‰ respectively.

The distribution of site-specific HAIs in ICUs is shown in Table 13, with the bloodstream infections topped the list in medical centers (39.3%), followed by urinary tract (36.0%), and pneumonia (10.6 %). In regional hospitals, the urinary tract infections topped the list (40.0%), followed by bloodstream infections (32.1%), and pneumonia (17.5%). 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 Klebsiella pneumoniae 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 63.7%, the proportion of K. pneumoniae isolates those were resistant to carbapenem (CRKP) is 14.5%, the proportion of P. aeruginosa isolates those were resistant to carbapenem (CRPA) is 19.6%, the proportion of enterococci isolates those were resistant to vancomycin (VRE) is 31.6%, and the proportion of S. aureus isolates those were resistant to oxacillin (MRSA) is 72.4%. Meanwhile, the antimicrobial resistance proportions of selected pathogens isolated from patients acquired HAIs in the ICUs of regional hospitals were 74.3%, 22.3%, 15.7%, 28.5% and 76.4% for CRAB, CRKP, CRPA, VRE and MRSA, respectively.

# VI. 2014 Data analysis of HAI in the ICUs of medical centers and regional hospitals

l la an Hal	1 <sup>st</sup> Qu	arter	2 <sup>nd</sup> Qu	larter	3 <sup>rd</sup> Qu	arter	4 <sup>th</sup> Quarter		
level	level		No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs		
Medical center	20	1,346	20	1,320	19	1,370	20	1,306	
Regional hospital	83	1,244	82	1,181	82	1,130	83	1,120	

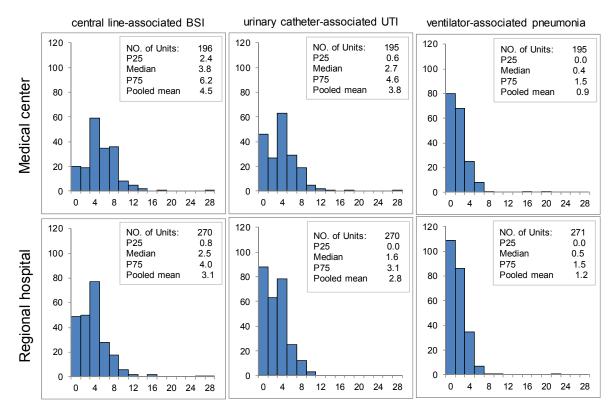
Table 11TNIS hospitals in the ICUs of medical centers and regional hospitals contributing dataused in this report, 2014

Note: Data updated to 2015/08/05

# Table 12Distribution of healthcare-associated infection rates by type of locations in the ICUsof medical centers and regional hospitals, 2014

Hospital level	Type of locations	Nia of costin	No. of	Patient	HAI Rate*	Percentile			
riospitariever	Type of locations	No. of units	HAIs	-days	(‰)	25th	50th	75th	
Medical Medical	Medical ICU	50	1,844	228,969	8.1	5.6	7.7	9.4	
center	Surgical ICU	60	2,176	258,682	8.4	6.6	8.4	9.7	
	Cardiology ICU	14	318	58,261	5.5	3.5	4.8	7.0	
	Pediatric ICU	48	535	151,855	3.5	0	2.9	4.5	
	Medical/surgical ICU	27	459	75,994	6.0	3.7	6.7	8.8	
	Total	199	5,332	773,761	6.9				
Regional	Medical ICU	58	1,241	263,411	4.7	3.0	4.3	6.0	
hospital	Surgical ICU	45	1,211	175,787	6.9	5.3	6.1	8.1	
	Cardiology ICU	13	187	44,617	4.2	2.6	3.8	4.9	
	Pediatric ICU	64	68	51,102	1.3	0	0	1.1	
	Medical/surgical ICU	93	1,904	340,967	5.6	2.8	4.6	6.6	
	Total	273	4,611	875,884	5.3				

Note: \*healthcare-associated infection rate= (number of HAIs/number of patient-days) ×1000‰



Note: 1. horizontal axis is device-associated infection rate, vertical axis is number of units; 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, 2014

#### Table13 Distribution of major types of healthcare-associated infection in the ICU patients from medical centers and regional hospitals, 2014

Types of infection —			Regional hospital		
	No.	%	No.	%	
Urinary tract	1,921	36.0	1,872	40.0	
Bloodstream	2,099	39.3	1,500	32.1	
Pneumonia	567	10.6	818	17.5	
Surgical site	330	6.2	220	4.7	
Other	425	8.0	265	5.7	
Total	5,342	100	4,675	100	

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

#### Table 14 Common pathogens of healthcare-associated infections in the ICUs of medical centers, 2014

			Types of Infection									
Pathogens	Total		Urinary tract		Bloodstream		Pneumonia		Surgical site		Others	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.         Rank           5         29         3           6         23           6         2           2         52         8           3         34         7           1         58         6           9         13         5           3         34         2           6         27         10           19         8         8	No.	
Candida spp.	1	935	1	538	1	310	8	15	5	29	3	43
C. albicans		557		344		143		13		23		34
Other Candida spp. or NOS		378		194		167		2		6		9
Escherichia coli	2	611	2	420	9	102	7	17	2	52	8	20
Klebsiella pneumoniae	3	482	5	115	3	201	3	104	3	34	7	28
Pseudomonas aeruginosa	4	466	4	151	7	107	1	119	1	58	6	31
Acinetobacter baumannii	5	444	6	75	2	218	2	106	9	13	5	32
Yeast-like	6	414	3	324	13	60	13	5	13	5	8	20
Staphylococcus aureus	7	316	12	16	4	154	4	54	3	34	2	58
Enterobacter spp.	8	271	7	55	5	135	6	35	6	27	10	19
E. cloacae		199		42		103		21		19		14
Other Enterobacter spp. or NOS		72		13		32		14		8		5
Coagulase negative staphylococci	9	220	9	21	6	115			7	20	1	64
Stenotrophomonas maltophilia	10	166	14	10	8	103	5	40	11	9	12	4
Others		1,774		447		885		89		182		171
Total	-	6,099	-	2,172	-	2,390	-	584	-	463	-	490

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;

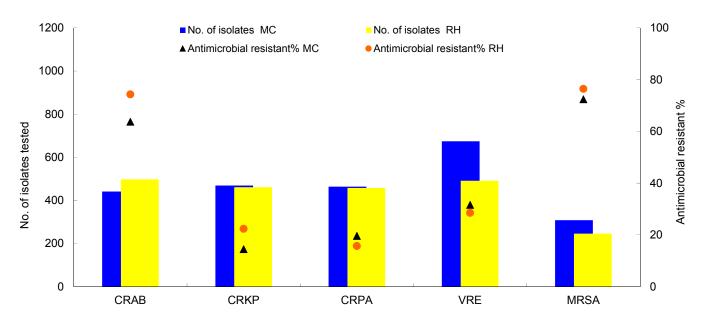
2. NOS: not otherwise specified

#### Table 15 Common pathogens of healthcare-associated infections in the ICUs of regional hospitals, 2014

						T	ypes of	Infectio	on			
Pathogens	Total		Urinary tract		Bloodstream		Pneumonia		Surgical site		Oth	ers
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Oth Rank 4 9 1 7 5 2 6 3 8 11	No.
Candida spp.	1	839	1	575	1	182	7	32	6	23	4	27
C. albicans		591		424		100		28		19		20
Other Candida spp. or NOS		248		151		82		4		4		7
Escherichia coli	2	589	2	427	7	84	6	33	3	37	9	8
Acinetobacter baumannii	3	565	5	118	3	174	1	217	7	21	1	35
Klebsiella pneumoniae	4	546	4	179	2	175	3	135	4	35	7	22
Pseudomonas aeruginosa	5	512	3	184	6	100	2	163	2	39	5	26
Staphylococcus aureus	6	277	11	18	4	135	4	67	5	25	2	32
Enterobacter spp.	7	239	7	54	8	83	5	39	1	40	6	23
E. cloacae		175		38		66		28		27		16
Other Enterobacter spp. or NOS		64		16		17		11		13		7
Coagulase negative <i>staphylococci</i>	8	198	9	28	5	122	27	1	8	17	3	30
Yeast-like	9	152	6	98	11	37	15	4	11	4	8	9
Serratia marcescens	10	115	13	7	9	68	10	27	10	6	11	7
Others		1,313		445		537		150		109		72
Total	-	5,345	-	2,133	-	1,697	-	868	-	356	-	291

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.
- 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, 2014

# School-based Surveillance System

## I. Introduction

School children, who are in close contact with each other and pass infections around, are more susceptible to the communicable diseases. This is one of the main ways microorganisms circulate in campuses and communities, causing outbreaks of infectious diseases. To monitor the trends of communicable diseases in a multifaceted way, Taiwan Centers for Disease Control (Taiwan CDC) launched a pilot program for elementary schools to monitor and report symptoms and infectious diseases in February 2001. As of 2014, a total of 682 elementary schools voluntarily enrolling students from kindergarten to 6<sup>th</sup> grade participated in the system.

The school-based surveillance system is a simple, flexible, specific and sensitive communicable disease reporting system that can effectively reflect epidemic trends, detect possible outbreaks and facilitate timely adoption of control measures, in order to contain the spread of communicable diseases in elementary schools.

In addition, these data are used to analyze and estimate the scope and magnitude of diseases at the school and regional levels, which can aid the early detection of disease clusters in communities. As a result, 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. Understand and establish the long-term trends of communicable diseases in schools and detect aberration in surveillance data.
- 2. Detect early epidemic trends in communities.
- 3. Provide references for assessing the disease burden.

### III. Diseases under surveillance

Diseases and symptoms reported under the school-based surveillance system include influenza like illness, hand-foot-and-mouth disease or herpangina, diarrhea, fevers, acute hemorrhagic conjunctivitis and other internal medicine diseases on a weekly basis.

#### IV. Reporting method, data analysis and data feedback

Schools participate in the surveillance system on a voluntary basis. The health care workers of public elementary schools report weekday data online by every Monday during each semester. Assigned officers at the Regional Centers of CDC observe the data completion and whether there are possible clusters of other communicable diseases. The weekly data are compiled, analyzed, and displayed as figures and periodically post on the CDC official website. In addition, the "Sentinel Surveillance Weekly Report" released on the website of the school-based surveillance system disseminate to the reporting schools, relevant health and education facilities.

#### V. Selective analysis of reportable diseases

- 1. Influenza-like illness
  - Case definition:

Acute respiratory infection with the following symptoms:

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

According to CDC school-based surveillance system, the morbidity of influenza-like illness in schools was between 0.06% and 0.27% in 2014, which overall is slightly higher than that in 2012 and comparable to the trends in 2013. The morbidity in weeks 9-23 was slightly higher than that in the same period in the past two years.

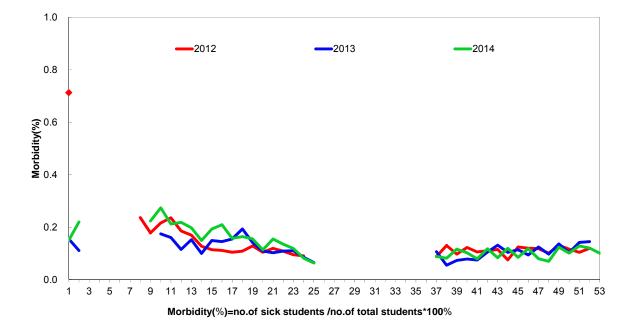
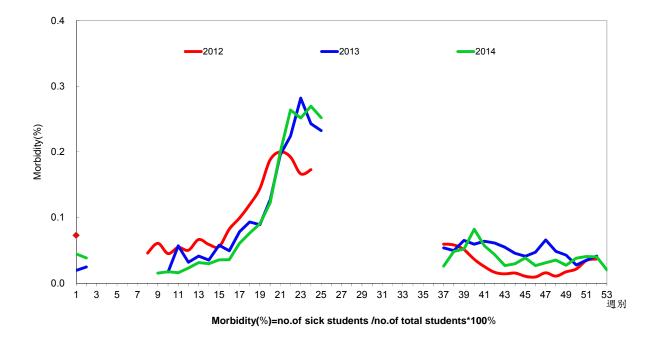
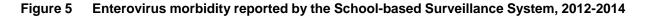


Figure 4 ILI morbidity reported by the School-based Surveillance System, 2012-2014

- 2. Hand-foot-and-mouth disease (HFMD) or herpangina
  - Case definition:
    - (1) Case definition of hand-foot-and-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 CDC school-based surveillance system, the morbidity of hand-foot-mouth disease or herpangina in schools was between 0.02% and 0.27% in 2014, which overall is higher than that in 2012 and slightly lower than that in 2013. The morbidity in weeks 21-22,24-25 and 39-41 were slightly higher than that in the same period in the past two years.





### 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; and
- (4) Watery diarrhea.
- Epidemic analysis:

According to CDC school-based surveillance system, the morbidity of diarrhea in schools was between 0.03% and 0.17% in 2014, which overall is slightly higher than that in 2012 and lower than that in 2013. The morbidity in weeks 9-12 and 24-25 were higher than that in the same period in the past two years.

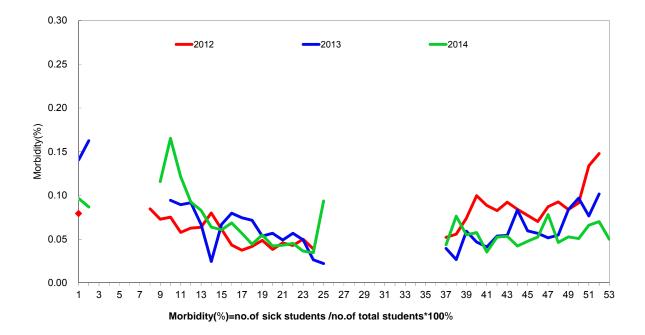


Figure 6 Diarrhea morbidity reported by the School-based Surveillance System, 2012-2014

### 4. Fever

Case definition:

Fever (ear temperature  $\ge$  38°C) but free of the illness or symptoms of influenza-like illness, diarrhea, hand-foot-mouth disease or herpangina.

Epidemic analysis:

According to CDC school-based surveillance system, the morbidity of fever in schools was between 0.27% and 0.62% in 2014, which overall is slightly higher than that in 2012 and 2013. The morbidity in weeks 9-25 and 38-41 were slightly higher than that in the same period in the past two years.

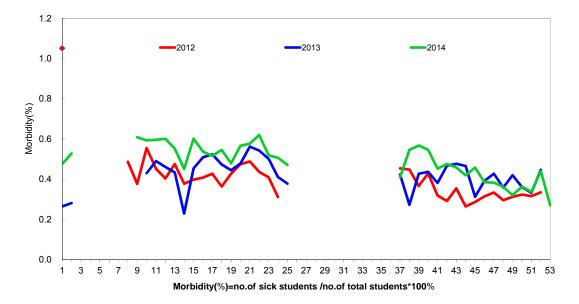


Figure 7 Fever morbidity reported by the School-based Surveillance System, 2012-2014

- 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 CDC school-based surveillance system, the morbidity of Acute hemorrhagic conjunctivitis (AHC) in schools was between 0.018‰ and 0.317‰ in 2014, which did not show noticeable change in trends, and overall is slightly higher than that in 2012 and lower than that in 2013.

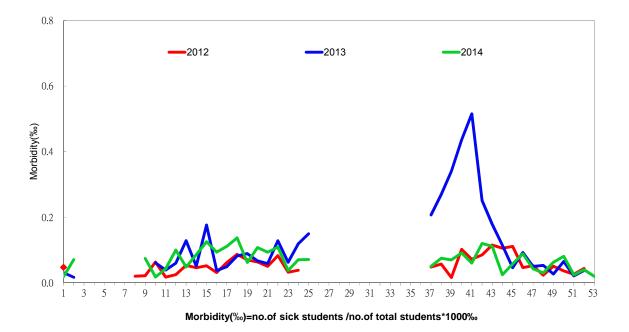


Figure 8 AHC morbidity reported by the School-based Surveillance System, 2012-2014

# 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 2014, 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 City, 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 2014 totaled 11,387, which represents an average of 942 per month. The contracted laboratories in northern Taiwan received the largest number of specimens with 4,409 cases, whereas laboratories in eastern Taiwan received the fewest specimens with 1,363 cases.

### 2. Prevalence of enterovirus

In 2014, 1,170 strains of enterovirus were isolated. After typing by immunofluorescence assay (IFA), it was found the dominant type was Coxsackie virus A (953 strains or 81.5%), followed by 87 strains of Coxsackie virus B (7.4%), 18 strains of Echovirus (1.5%), whereas 111 isolates (9.5%) were non-polio enterovirus (NPEV).

Among 953 strains of Coxsackievirus A isolated, the dominant types were CVA10 (39.5%) and CVA2 (22.9%), whereas the majority of Coxsackievirus B isolated constituted type B5 (60.9%). Most of the Echovirus strains isolated were classified as type 4 (38.9%). (See Figure 9 Enterovirus positive isolation rates in specimens collected by the sentinel physicians, 2014). After typing of NPEV by gene sequencing, it was found the majority of NPEV were Echovirus Type 25, followed by CVA21, Enterovirus 68, Echovirus 18, CVA2, CVA10 and CVA 16.

To sum up, the top five types of enterovirus isolated in 2014 are CVA10 (32.1%), CVA2 (18.6%), CVA4 (11.6%), CVA5 (9.7%), and CVA16 (7.4%). (See Figure 10 Strain ratios of enterovirus isolates from specimens collected by the sentinel physicians, 2014).

#### 3. Prevalence of influenza virus

In 2014, 1,396 strains of influenza virus were isolated, including 481 strains of influenza A subtype H3 (34.5%), 555 strains (39.8%) of type B, and 360 strains of H1N1 (25.8%). Type B was the most prevalent strain in 2014; during weeks 1-15 of the year, influenza A subtypes H3 and H1N1 were the most prevalent, whereas from week 11 on, influenza B virus took over, but after week 45, influenza A subtype H3 became prevalent again (see Figure 11 Isolation

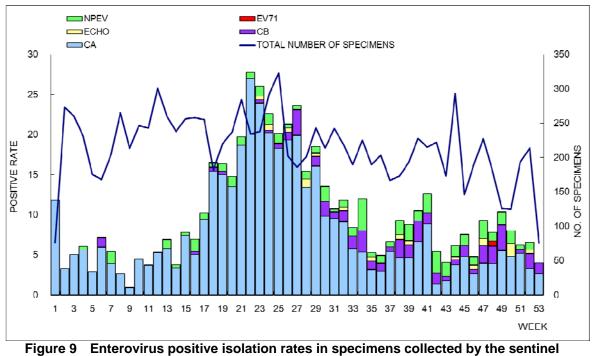
situations of influenza viruses from specimens collected by the sentinel physicians, 2014).

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 H3N2 subtype were predominantly A/Texas/50/2012, while the rest were A/Switzerland/9715293/2013. Of the influenza B virus, B/Brisbane/60/2008 (B/Vic) was the dominant type and some were B/PHUKET3073/2013(B/Yam), whereas 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 2014 are in sequence INFB (39.8%), INFAH3 (34.5%), and H1N1 (25.8%) (see Figure 12 Strain ratios of influenza virus isolates from specimens collected by the sentinel physicians, 2014).

#### 4. Epidemic situations of other respiratory tract viruses

Respiratory tract viruses other than influenza virus isolated totaled 2,589 cases, including adenovirus (77.6%), Parainfluenza virus (6.2%), Herpes simplex virus (HSV) (11.7%), Respiratory syncytial virus (RSV) (2.5%), and Cytomegalovirus (CMV) (2%) (see Figure 13 Positive isolation rates for respiratory tract viruses from specimens collected by the sentinel physicians, 2014).



physicians, 2014

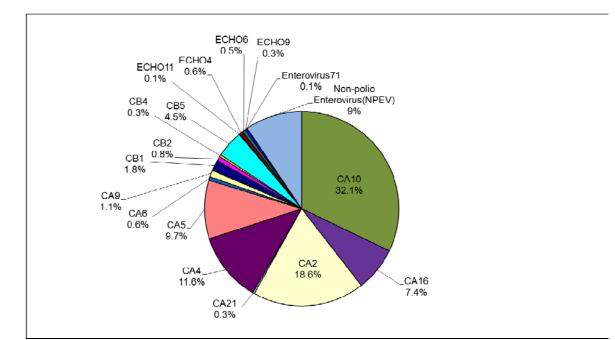


Figure 10 Strain ratios of enterovirus isolates from specimens collected by the sentinel physicians, 2014

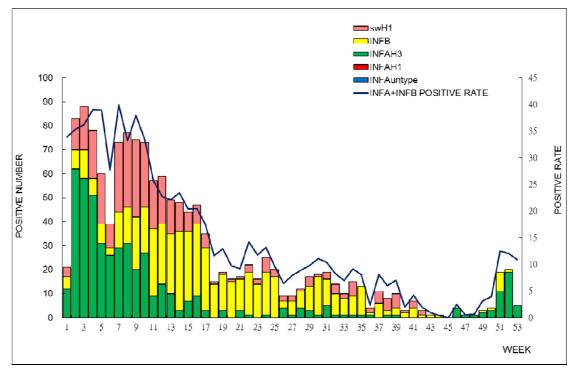


Figure 11 Isolation situations of influenza viruses from specimens collected by the sentinel physicians, 2014

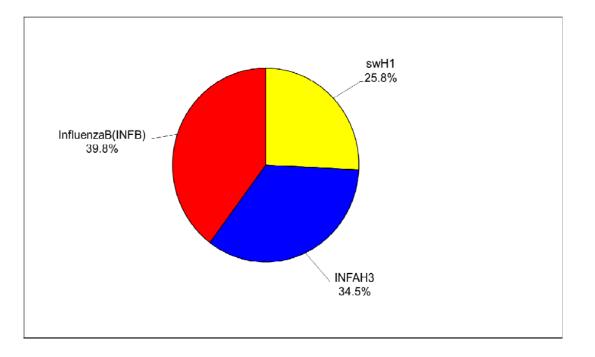


Figure 12 Strain ratios of influenza virus isolates from specimens collected by the sentinel physicians, 2014

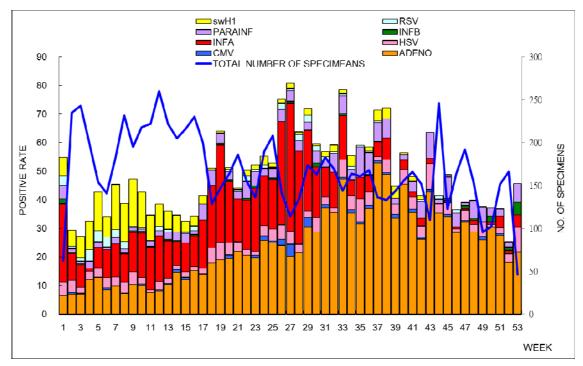


Figure 13 Positive isolation rates for respiratory tract viruses from specimens collected by the sentinel physicians, 2014

# **Quarantine Surveillance**

#### 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. In 2014 the 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.

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 636,290person-times health examinations conducted on foreign workers in Taiwan in 2014, 4,214 person-times were unqualified, representing a unqualified rate of 0.66%, of which, intestinal parasite diseases accounted for the highest unqualified rate with 3,355 person-times (0.53%), followed by chest X-ray tested for tuberculosis where 801 person-times (0.13%) were unqualified. On top of that, 17 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. 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 2014, the number of inbound passengers was 21,707,379 and 15,280 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 118 dengue fever cases, 2 shigellosis cases, 4 chikungunya fever cases. In addition, in the section of communicable diseases not included on the list of notifiable communicable diseases, Taiwan CDC found 14 Norovirus cases and one Rotavirus case. (Table 17)

Country	Physical Examinations		Failed	X-ray	HIV	Syphilis	Parasites	Hansen's disease	Mental condition	Others	
Theilend	At Entry	23,405	-	-	-	-	-	-	-	-	
Thailand	Periodic	57,191	430	93	-	4	333	-	-	-	
	Fellouic	57,151	0.75%	0.16%	-	0.01%	0.58%	-	-	_	
	At Entry	66,629	82	53	2	2	25	-	-	-	
Indonesia			0.12% 1,603	0.08% 310	0.00% 10	0.00%	0.04% 1,254	-	-	-	
	Periodic	184,641	0.87%	0.17%	0.01%	0.02%	0.68%	-	-	-	
			21	13	0.0170	0.02 /0	8				
	At Entry	46,280	0.05%	0.03%	-	-	0.02%	-	-	_	
Philippines	Deviadia	95,161	815	189	4	2	620	-	-	_	
	Periodic	95,161	0.86%	0.20%	0.00%	0.00%	0.65%	-	-	-	
	At Entry	4	-	-	-	-	-	-	-	-	
Malaysia	, a <u>_</u> , j		-	-	-	-	-	-	-	-	
-	Periodic	1	-	-	-	-	-	-	-	-	
	At Entry	At Entry	At Entry 50,479	4	2	-	-	2	-	-	-
Vietnam		At Entry 50,479	0.01%	0.00%	-	-	0.00%	-	-	-	
vietilalli	Periodic 11	Periodic 112,494	1,258	141	1	4	1,112	-	-	-	
		,	1.12%	0.13%	0.00%	0.00%	0.99%	-	-	-	
	At Entry	1	-	-	-	-	-	-	-	-	
Mongolia	Periodic	1	-	-	_	-	-	-	-	-	
				-		-	-	-	-		
	At Entry	-	-	-	-	-	-	-	_	_	
Others	<b>D</b>		1	-	-	-	1	-	-	-	
	Periodic	3	33.33%	-	-	-	33.33%			-	
	At Entry	186,798	107	68	2	2	35	-	-	-	
Total	/ Linu y	100,700	0.06%	0.04%	0.00%	0.00%	0.02%	-	-	-	
. 5101	Periodic	449,492	4,107	733	15	39		-	-	-	
		,	0.91%	0.16%	0.00%	0.01%	0.74%	-	-	-	
Т	otal	636,290	4,214	801	17	41	3,355	-	-	-	
			0.66%	0.13%	0.00%	0.01%	0.53%	-	-	-	

Table 16 Physical examinations status of foreign labors, 2014

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.

	Inbound Cases with symptom		vith symptom	Pathogen dete	cted	Note
Month	passenger No.	Case No.	Case percentage (%)	Notifiable disease (case No.)	Others (case No.)	(Traveling country)
Jan.	1,579,767	2,452	0.16	Dengue fever (9), Shigellosis (1)	Norovirus(14), Rotavirus(1)	Indonesia, Malaysia, Singapore, Philippines(Dengue fever) / Thailand (Shigellosis) / Korea(Norovirus) / Korea(Rotavirus)
Feb.	1,571,246	1,876	0.12	Dengue fever (8)		Indonesia, Malaysia, Philippines, Singapore (Dengue feve)
Mar.	1,786,528	1,332	0.07	Dengue fever (11), Chikungunya fever (2), Shigellosis (1)		Indonesia, Malaysia, Philippines (Dengue fever) / Indonesia(Chikungunya fever) / Myanmar(Shigellosis)
Apr.	1,872,573	1,179	0.06	Dengue fever (5), Chikungunya fever (1)		Indonesia, Malaysia(Dengue fever) / Indonesia(Chikungunya fever)
Мау	1,837,986	1,232	0.07	Dengue fever (8)		Malaysia, Indonesia, Singapore (Dengue fever)
Jun.	1,847,406	1,312	0.07	Dengue fever (9)		Malaysia, Indonesia, Philippines, China, Korea (Dengue fever)
Jul.	1,987,674	1,497	0.08	Dengue fever (6)		Indonesia, Thailand, Philippines, Singapore(Dengue fever)
Aug.	1,902,097	1,141	0.06	Dengue fever (12), Chikungunya fever (1)		Indonesia, Malaysia, Philippines, Singapore, Myanmar (Dengue fever) / Indonesia(Chikungunya fever)
Sep.	1,817,893	778	0.04	Dengue fever (14)		Malaysia, Philippines, Indonesia, China, Myanmar, Vietnam(Dengue fever)
Oct.	1,848,023	682	0.04	Dengue fever (18)		China, Malaysia, Indonesia, Vietnam, Philippines, Bangladesh, Thailand, Singapore(Dengue fever)
Nov.	1,809,722	688	0.04	Dengue fever (9)		Malaysia, Singapore, Indonesia, Thailand, Cambodia, China (Dengue fever)
Dec.	1,846,464	1,111	0.06	Dengue fever (9)		Malaysia, Indonesia, Singapore, Myanmar(Dengue fever)
Total	21,707,379	15,280	0.07	Dengue fever (118), Shigellosis (2), Chikungunya fever (4)	Norovirus(14), Rotavirus(1)	

 Table 17
 Statistic of CDC "Communicable Diseases Survey Form " in 2014

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 2014 finds the following: the health bureaus of all counties and cities conducted 36,580 wards/villages, including 19,760 wards/villages in Level 0, 10,412 wards/villages in Level I, 3,708 wards/villages in Level II, 1,746 wards/villages in Level III, 487 wards/villages in Level IV, 93 wards/villages in Level V, 99 wards/villages in Level VI, 20 wards/villages in Level VII, 150 wards/villages in Level VIII, 105 wards/villages in Level IX (Table 18). The number of wards/villages above Level II in the range of 4.2~29.2 displayed one peak from April to September, and declined after October (Figure 14).

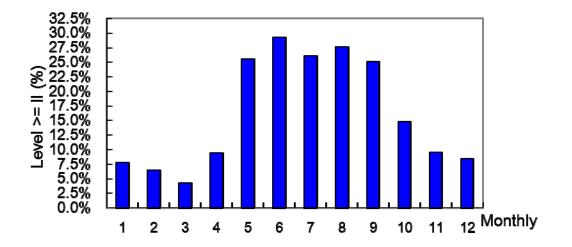


Figure 14 The percentage of wards/villages with Dengue fever vector by month in 2014

	Villages				В	reteua I	ndex				
Locality	(No. of times	0	1	2	3	4	5	6	7	8	9
Taichung City	1,358	644	690	21	3	-	-	-	-	-	-
Taipei City	2,010	1,165	591	98	55	6	3	2	-	33	57
Taitung County	947	499	396	37	15	-	-	-	-	-	-
Tainan City	5,870	2,479	1,948	857	459	107	14	6	-	-	-
Yilan County	1,205	986	207	10	2	-	-	-	-	-	-
Hualien County	1,387	1,240	128	15	4	-	-	-	-	-	-
Kinmen County	104	83	18	2	1	-	-	-	-	-	-
Nantou County	875	446	381	48	-	-	-	-	-	-	-
Pingtung County	1,879	564	628	330	205	94	33	9	1	11	4
Miaoli County	662	146	412	99	4	-	-	-	-	-	1
Taoyuan City	1,137	955	145	18	13	2	2	-	-	-	2
Kaohsiung City	8,360	2,348	2,978	1,955	874	174	23	4	-	2	2
Lienchiang County	24	24	-	-	-	-	-	-	-	-	-
Yunlin County	988	794	191	2	1	-	-	-	-	-	-
New Taipei City	2,312	1,705	578	24	3	-	-	1	-	1	-
Hsinchu City	352	203	135	8	4	1	-	-	1	-	-
Hsinchu County	1,625	1,435	141	7	-	9	-	3	-	29	1
Chiayi City	251	202	46	3	-	-	-	-	-	-	-
Chiayi County	2,000	1,937	55	5	2	-	1	-	-	-	-
Changhua County	1,193	591	540	59	3	-	-	-	-	-	-
Penghu County	2,041	1,314	204	110	98	94	17	74	18	74	38
Total	36,580	19,760	10,412	3,708	1,746	487	93	99	20	150	105

 Table 18
 Distribution of Breteua index, 2014

### II. Malaria vector mosquitoes

In 2014 mosquito light traps were hanged for collection of adult mosquitoes in 69 townships and 220 villages, including Pingxi Dist., Wulai Dist and Shuangxi Dist. in New Taipei city; Xinwu Township and Guishan Township in Taoyuan City; Zhongliao Township and Shuili Township in Nantou County; Erlun Township, Kouhu Township, Tuku Township, Dapi Township, Yuanchang Township, Douliu City, Dounan Township, Shuilin Township, Beigang Township, Gukeng Township, Taixi Township, Sihu Township, Xiluo Township, Dongshi Township, Linnei Township, Huwei Township, Lunbei Township, Mailiao Township, Citong Township and Baozhong Township in Yunlin County; Zuozhen Dist., Nanhua Dist., Xinhua Dist., Nanxi Dist., Longqi Dist. and Guanmiao Dist. in Tainan City; Shanlin Dist. and Yanchao Dist. in Kaohsiung City; Sanxin Township, Datong Township, Wujie Township, Dongshan Township, Zhuangwei Township, Yilan city, Nanao Township, Yuanshan Township, Toucheng Township, Jiaoxi Township, Luodong Township and Suao Township in Yilan County; Dawu Township, Taimali Township, Taitung City, Chenggong Township, Chishang Township, Beinan Township, Yanping Township, Donghe Township, Jingfeng Township, Changbing Township, Hairui Township, Luyeh Township, Daren Township, Guanshan Township, Lanyu Township and Ludao Township in Taitung County. Yuli Township, Guangfu Township, Hualien City, Ruisui Township, Shoufeng Township and Fenglin Township in Hualien County. The survey result showed that 5 townships and 7 villages had collected adult An. minimus (Table 19 and Figure 15). Tugi Village of Longgi Township in Tainan City had the highest density with the record of catching 3 An. minimus per trap-night in August.

County /	Township	An. minimus (No.)	Villages (No.)	Villages with An. minimus
Taitung County	Donghe	1	1	Donghe
	Changbing	1	1	Zhangyuan
Tainan City	Longqi	9	3	Tuqi · Shicao · Daping
Hualien County	Ruisui	1	1	Ruibei
	Guangfu	1	1	Daan
Total	5 townships	13	7	

 Table 19 The number of adult mosquitoes of Anopheles minimus collected in 2014

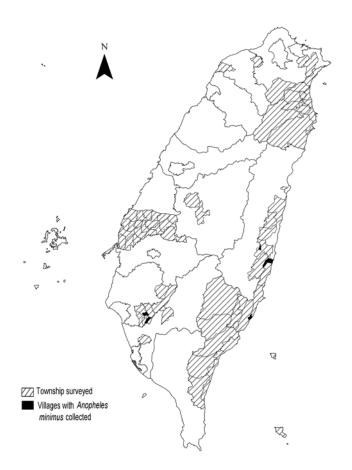


Figure 15 Distribution of Anopheles minimus, 2014

## Symptom Surveillance System

Severe acute respiratory syndrome (SARS), a global health alert beginning in March 2003, also affected Taiwan and caused public panic and unprecedentedly crippled the economy. In December of the same year, avian influenza had spread across Korea, Japan and Vietnam. Since then, countries around the world reported several high/low pathogenic avian influenza (HPAI/LPAI) outbreaks. Based on the concept of disease clusters, Centers for Disease Control implemented the Symptom Surveillance System in 2003, in order to detect the emergence or unusual trends of infectious diseases, and take control measures promptly. Health authorities report to the system while individuals of a cluster develop similar symptoms that follow the reporting criteria. In addition, the system boosted the capacity for monitoring imported diseases and report symptomatic cases by quarantine stations at ports of entry.

The occurrence of emerging outbreaks of the 2009 H1N1 influenza pandemic, human infections with avian influenza A(H7N9) and A(H5N1), and Middle East Respiratory Syndrome Coronavirus attracted worldwide attention and concerns and caused considerable panic worldwide. We update the monitored symptoms if needed. The followings are the symptoms of diseases to be reported currently: H5N1 influenza cases under investigation (removed from July 1, 2014), influenza-like illness, fever of unknown origin, diarrhea, upper respiratory infection, patients with coughing lasting for more than three weeks, enterovirus, and varicella.

### 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

Public health authorities 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. Public health officers of local authorities and CDC can access data of reports, specimen submission forms and test results in the system through BO (Business Objects) for analysis.

### IV. Description of reportable diseases

- Person under investigation for H5N1 influenza: (removed from July 1, 2014)
  - 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):

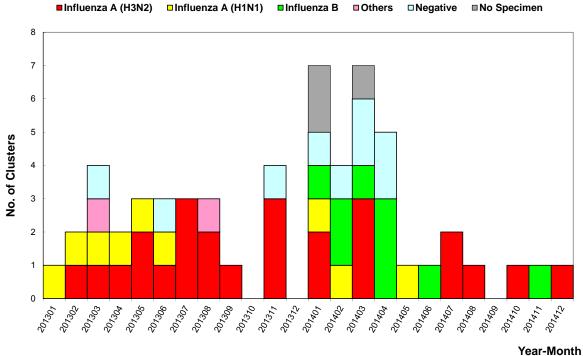
- Meet the reporting definition of influenza-like illness (\*see definition of influenza-like illness in Point 2, Section 4 of this chapter).
- Chest X-ray indicates pneumonia.
- \* Epidemiological conditions (persons with any of following exposure histories within 7 days prior to onset of disease):
- The person with animal contact history (or their excrement) or contact 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 influenza 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.
- Contact influenza virus through experiments in a laboratory.
- (2) Pneumonia patients with quick exacerbation of unknown origin.
- (3) A confirmed case-patient of H5 subtype influenza diagnosed by government-authorized laboratories, designated local competent authorities, medical service (affair) institutions, academic or research institutions with laboratory capacity.
- 2. Results of specimens collected from suspected cases of H5N1 influenza: Two cases reporting in 2014 excluded H5N1 infection (1 case tested positive of A(H1N1), 1 case tested 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 a cluster with the concern of spreading.

\*Definition of influenza-like illness for reporting purpose: the case should meet all the following conditions:

- (1) Sudden onset, with fever (tympanic temperature  $\geq$  38  $^\circ\!{\rm C}$  ) and respiratory tract infection;
- (2) Muscular soreness or headache or extreme fatigue; and
- (3) Runny nose, tonsillitis and bronchitis (common cold) should be excluded.
- Epidemic analysis of ILI clusters: In 2014, a total of 31 clusters of influenza-like illness were reported. Laboratory confirmed clusters included 10 events of A(H3N2) infection, 3 events of A(H1N1) infection, 9 events of influenza B infection. The pathogens of other events were unknown or had no specimens taken. Schools had the highest number of influenza-like illness clusters, followed by populous institutions and hospitals.

	Test results							
No. of Clusters	Influenza A (H3N2) viruses	Influenza A (H1N1) viruses	Influenza B viruses	Negative	No specimen			
31	10	3	9	6	3			

Table 20 Test results for influenza-like illness clustering incidents in 2014



Year-Mont

Figure 16 Evolutional trends of influenza-like illness clustering incidents in 2013-2014

Institution categories	Cluster No.		
schools	14		
populous institutions	13		
hospitals	4		
militaries	0		
others	0		
total	31		

### ■Diarrhea clustering

- Case definition: Excluding 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.
   ※Intestinal symptoms: diarrhea three times or more a day, and accompanied by vomiting or fever, or mucus or blood-tinged in stools, or watery diarrhea
- 2. Epidemic analysis of diarrhea clusters: In 2014, a total of 106 diarrhea cluster events were reported. Clusters that were tested positive include 42 events of Norovirus infection, 11 events of mixed infection of Norovirus and Rotavirus, 8 events of Rotavirus infection, and 2 events of infection of other pathogens (1 event of *Staphylococcus aureus* infection and 1 event of *Salmonella* infection). The other events were negative. Schools had the highest number of diarrheal clusters, followed by populous institutions, others (including family, business places, babysitting center and tour group), hospitals and military bases.

	Test results								
No. of Clusters	Norovirus	Norovirus and Rotavirus	Rotavirus	*Others	Negative	No specimen			
106	42	11	8	2	43	0			

### Table 22 Test results for diarrhea clustering incidents in 2014

\*Others: Others include 1 event of Staphylococcus aureus infection and 1 event of Salmonella infection.

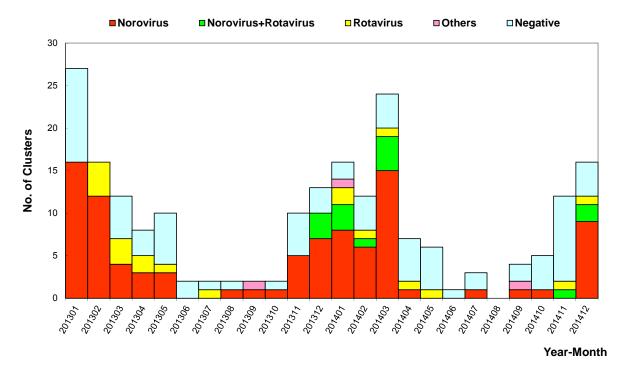


Figure 17 Evolutional trends of diarrhea clustering incidents in 2013-2014

Institution categories	Cluster No.	
schools	68	
populous institutions	24	
others	8	
hospitals	5	
militaries	1	
total	106	

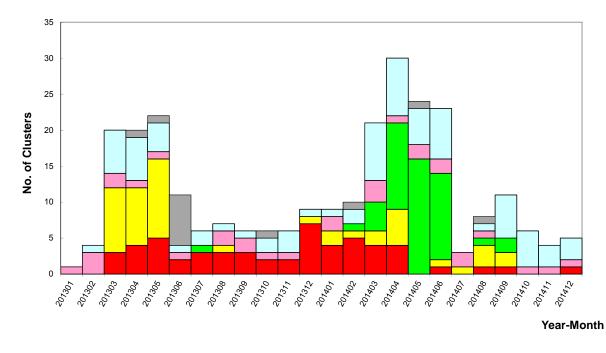
Table 23 Distribution of clusters of diarrhea cases (by location) in 2014

### ■ 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 2014, a total of 154 URI cluster events were reported. Clusters that were tested positive include 21 events of A(H3N2) infection, 17 events of A(H1N1) infection, 48 events of influenza B infection, and 16 others (including 6 events of RSV infection, 5 events of adenovirus infection, 2 events of Rhinovirus infection, 2 events of mixed infection of influenza A (H3N2) and influenza B viruses, 1 event of mixed infection of influenza A (H3N2) and A (H1N1) viruses). The pathogens of other events were unknown or had no specimens taken. Schools had the highest number of URI clusters, followed by populous institutions, hospitals, military bases and others (including postpartum nursing homes).

No. of Clusters	Influenza A (H3N2) viruses	Influenza A (H1N1) viruses	Influenza B viruses	*Others	Negative	No specimen
154	21	17	48	16	49	3

\*Others: Others include 6 events of RSV infection, 5 events of adenovirus infection, 2 events of Rhinovirus infection, 2 events of mixed infection of influenza A (H3N2) and influenza B viruses, 1 event of mixed infection of influenza A (H3N2) and A (H1N1) viruses.



■Influenza A (H3N2) □Influenza A (H1N1) ■Influenza B □Others □Negative ■No Specimen

Figure 18 Evolutional trends of upper respiratory tract infection clustering incidents in 2013-2014

Table 25 Distribution of clusters of upper respiratory tract infection cases (by location) in 2014	Table 25	Distribution of clusters of	f upper respiratory	r tract infection cas	ses (by location) in 2014
--	----------	-----------------------------	---------------------	-----------------------	---------------------------

Institution categories	Cluster No.
schools	89
populous institutions	37
hospitals	25
militaries	2
others	1
total	154

.

### ■ Fever of unknown 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 2014, a total of 3 events of fever of unknown origin cluster were reported. Clusters that were tested positive include 1 event of A(H3N2) infection, 1 event of Norovirus infection. Test results for one cluster were negative. These clusters were occurred in populous institution, hospital and school respectively.

### 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 was no cluster of patients with coughing lasting more than three weeks reported in 2014.

### 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: There was no enterovirus cluster reported in 2014.

### Varicella clustering

- 1. Case definition: Suspected cluster events that occur in populous institutions such as ships, aircraft, preschools, schools, barracks, prisons, etc., cases of acute exacerbation of papules and blisters symptoms and with person, time and place relevance that are suspected as cluster infection with the concern of spreading.
- 2. Epidemic analysis of varicella clusters: In 2014, a total of 80 events of varicella cluster were reported. Schools had the highest number of varicella clusters, followed by hospitals, military bases and the others (including business places).

Institution categories	Cluster No.	
schools	75	
hospitals	3	
militaries	1	
others	1	
populous institutions	0	
total	80	

 Table 26
 Distribution of clusters of varicella cases (by location) in 2014

# Real-time Outbreak and Disease Surveillance System

### I. Purpose of surveillance

Through the "Real-time Outbreak and Disease Surveillance (RODS)" system, 179 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

179 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

Enterovirus infections are generally most prevalent between April and October every year in Taiwan. The epidemics in 2014 which peaked in June and July was slightly less prevalent than that in 2013. Based on the 2014 emergency enterovirus infection surveillance data, the emergency room visit rate of enterovirus infections throughout the year ranged from 0.75‰ to 19.67‰, which was lower than 2013 (1.31‰ to 25.45‰). The epidemic condition picked up starting in mid-April and peaked in June and July. The prevalence during the peak season in 2014 was slightly lower than those in previous years where the outbreak became noticeable in early June and slowed down after August. [Note: permillage of enterovirus visits= (person-time of emergency room enterovirus cases/ total person-time of emergency room cases)\* 1000‰]

#### Influenza-like illness

In 2014, the emergency room visit rate for influenza-like illness ranged from 6.62% to 24.13%, which showed a similar trend as compared to the surveillance figures in 2013 (7.04% to 19.18%) except during its peaks. Based on the 2014 7-day moving average chart of influenza-like illness visit rate, the emergency room visits rose sharply starting the end of January and reached a peak in early February when most hospitals and clinics closed their outpatient services during the Chinese New Year holiday. The emergency room visit rates declined gradually afterwards, but showed a minor spike in March, April and June each before it picked up again at the end of December. [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

In 2014, the emergency room visit rate for acute diarrhea ranged from 2.61% to 10.11%. The prevalence in 2014 at its peak was lower than that in 2013 (2.46% to 12.47%), but the epidemic leveled off after peaking in early February and showed a minor spike in September. Diarrhea epidemic typically reaches its peak before and after the Chinese New Year. Based on the 7-day moving average chart of acute diarrhea visit rate, the prevalence of the disease reached its peak during the Chinese New Year and emergency room visits due to acute diarrhea rose sharply when most hospitals and clinics closed their outpatient services during the holiday. The prevalence leveled off afterwards, but showed a abrupt spike in September and then declined thereafter before it picked up 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)

In 2014, the emergency room visit rate for conjunctivitis ranged from 1.02‰ to 6.78‰, which was slightly lower than that in 2013 (0.72‰ to 7.11‰). Based on the 7-day moving average chart of conjunctivitis visit rate, the emergency room visits showed a brief peak in early February during the Chinese New Year holiday when most hospitals and clinics closed their outpatient service and then leveled off afterwards. Similar to previous years, 2014 showed other peaks during the year, but the emergency room visit rates (permillage of visits) during those peaks were higher than those in 2013. [Note: permillage of AHC visits = (person-time of emergency room AHC cases / total person-time of emergency room cases)\* 1000‰]

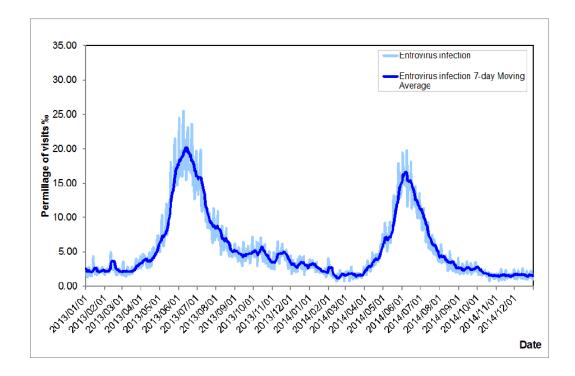


Figure 19 Daily Percentage of Emergency Department of Enterovirus Visits & 7-day Moving Average

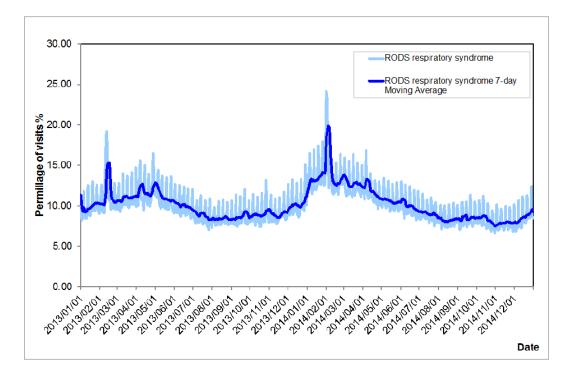


Figure 20 Daily Percentage of Emergency Department of Respiratory Visits & 7-day Moving Average

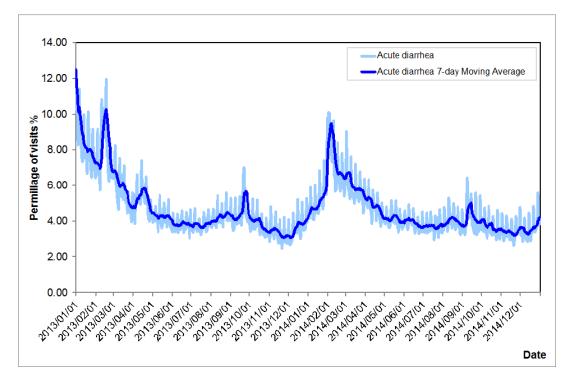


Fig 21 Daily Percentage of Emergency Department of Acute Diarrhea Visits& 7-day Moving Average

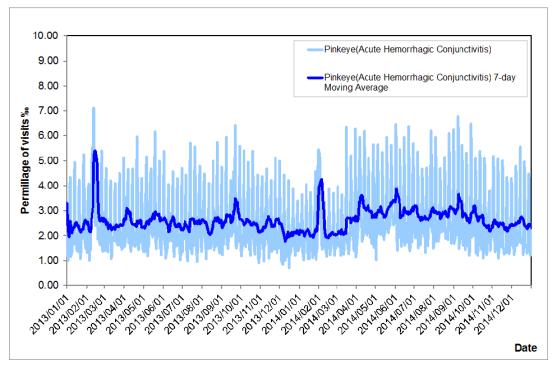


Fig 22 Daily Percentage of Emergency Department of Acute Hemorrhagic Conjunctivitis Visits & 7-day Moving Average

### 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 2014, between 1,546 and 26,899 person-times visited the hospitals for influenza-like illness on an outpatient basis every day, which was higher in comparison with the number of outpatient visits (ranging between 2,000 and 17,000 person-times a day) in 2013. 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 at the end of January. But outpatient visits dropped sharply in early February during the Chinese New Year holiday when most hospitals and clinics were closed. The outpatient visits peaked again after the holiday, but the epidemic condition tapered off gradually. In comparison with 2013, the influenza epidemic in January 2014 was significantly more noticeable. The epidemic condition tapered off after the Chinese New Year holiday, but the number of outpatient visits was still higher than that in 2013. The epidemic became milder after May in 2014.

### Enterovirus infections

In 2014, between 89 and 7,730 person-times visited the hospitals for enterovirus infection on an outpatient basis every day, which was slightly higher in comparison with the number of outpatient visits in 2013 (ranging between 200 and 7,600 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 and trend in 2014 were similar to those in 2013 as the incidence of enterovirus infection picked up quickly in May, persisted until mid-July and then dropped off suddenly afterwards to reach its low in October and November. But unlike 2013, there were two uptrends after decline in 2014.

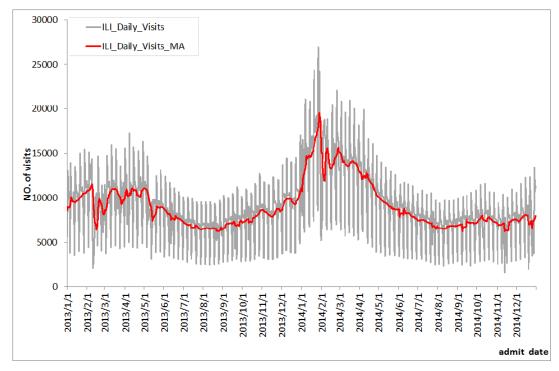


Figure 23 Daily influenza-like illness visits and the 7-day moving average trend, 2013-2014

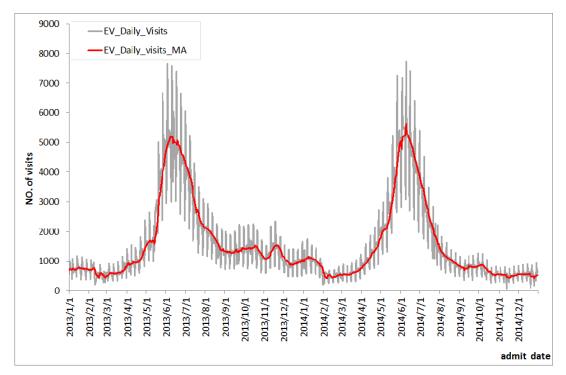


Figure 24 Daily enterovirus visits and the 7-day moving average trend, 2013-2014

### 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 secondary 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 severe 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 260 to 450 in 2014, as compared to the weekly deaths between 270 and 360 in 2013. If analyzed by age group, the majority of P&I deaths in 2014 and 2013 occurred in 65 years old and above, accounting for respectively 88.0% and 87.4% 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 2014 started to rise at the end of 2013, showed an obvious peak during weeks 1-22 of the year and reached the highest point on week 9. In comparison with the trend in 2014, the overall epidemic curve in 2013 showed a gentle slope.

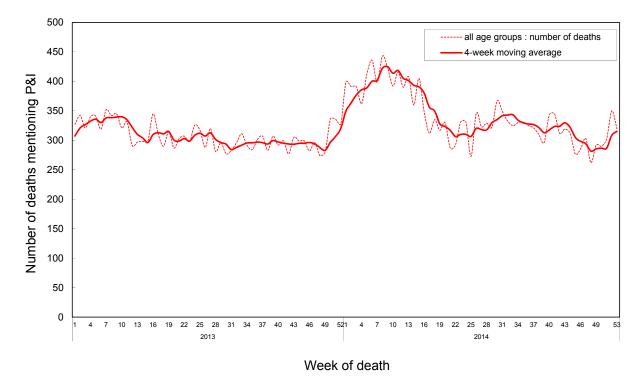


Figure 25 The surveillance trend of pneumonia and influenza mortality

### PART III

Surveillance Reports of Selected Diseases

### $\odot\,$ Abbreviations and Symbols Used in Table

- No reported cases.
- ... Not under surveillance.

### Measles

In 2014, 26 confirmed cases of measles (incidence rate: 0.11 per 100,000 population) were reported, which increased as compared with 8 confirmed cases (incidence rate: 0.03 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows: (1) By gender

There were 15 male cases (57.7%) and 11 female cases (42.3%) with male to female ratio of 1.4:1.0

(2) By age group

There were 7 cases each in 15-24 and 25-39 years age groups, 5 cases each in 0-1 and 1-4 years age groups, and 2 cases in 40-64 year age group.

(3) By month

There were 6 cases each in April and October, 3 cases each in January, May and August, 2 cases each in March and June and 1 case in February.

(4) By residential region

Taipei City had 7 cases reported, followed by Nantou County with 5 cases, Taichung City with 4 cases, Taoyuan City and Kaohsiung City with 3 cases each, and New Taipei City, Hsinchu City, Pingtung County and Hualien County with 1 case each, while the other cities and counties had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Nantou County (0.97), followed by Hualien County (0.30) and Taipei City (0.26).

(5) Imported cases and countries of infection

There were 18 imported cases of measles in 2014, including 6 cases each from China and Philippines, 2 cases each from Indonesia and Vietnam, and 1 case each from Malaysia and Hong Kong.

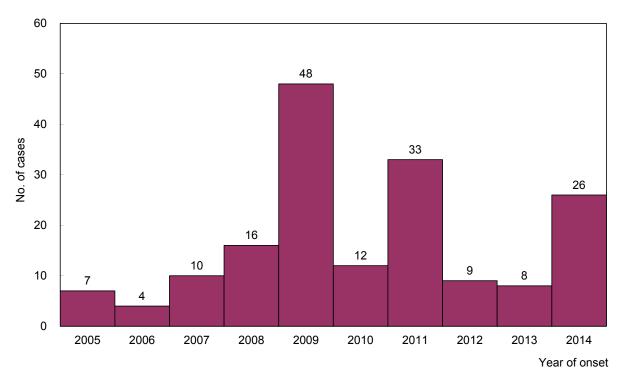


Figure 26 Number of confirmed Measles cases, 2005-2014

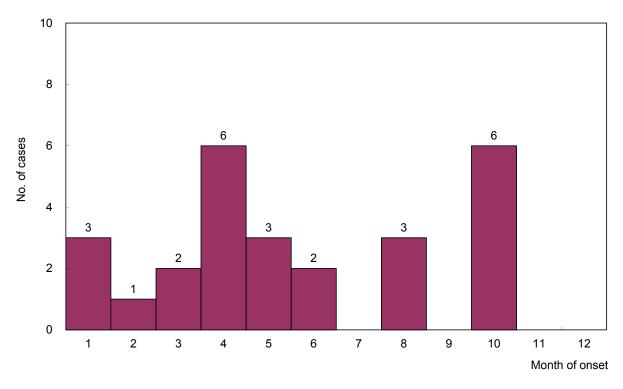


Figure 27 Number of confirmed Measles cases, 2014

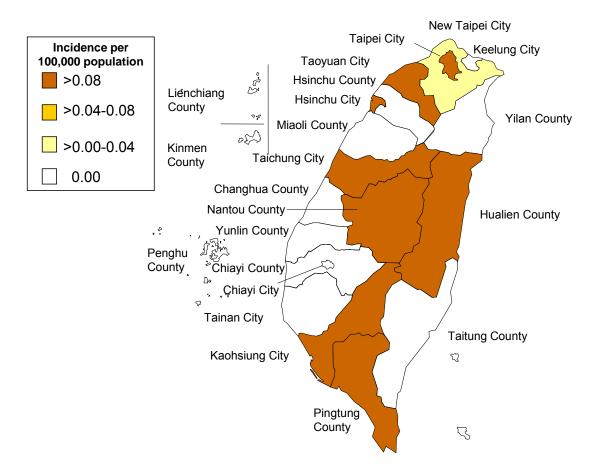


Figure 28 Geographical distribution by incidence of confirmed Measles cases, 2014

### Pertussis

In 2014, 78 confirmed cases of pertussis (incidence rate; 0.33 per 100,000 population) were reported, which increased as compared with 51 confirmed cases (incidence rate: 0.22 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

### (1) By gender

There were 39 male cases (50.0%) and 39 female cases (50.0%) with male to female ratio of 1.0:1.0.

### (2) By age group

There were 40 cases in 0-1 year age group, 13 cases in 5-14 years age group, 8 cases in 1-4 years age group, 7 cases in 40-64 years age group, and 5 cases each in 15-24 and 25-39 years age groups.

Of the 40 cases in 0-1 year age group, 19 cases were 2 months old, 9 cases were 1 month old, 7 cases were 3 months old, 2 cases were less than one month old, and 1 case each was 4 months old, 6 months old and 10 months old.

(3) By month

There were confirmed cases in each month of the year except for January, with 11 cases each in August and December, 9 cases each in May and September, 7 cases each in March and November, 6 cases each in June, July and October, 5 cases in April and 1 case in February.

(4) By residential region

New Taipei City had the highest number of incidents with 26 cases reported, followed by Taipei City with 13 cases, Taoyuan City with 11 cases, Kaohsiung City and Hualien County with 5 cases each, Hsinchu County and Taichung City with 3 cases each, Changhua County, Nantou County, Chiayi County and Tainan City with 2 cases each, and Yilan County, Hsinchu City, Miaoli County and Yunlin 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 Hualien County (1.50), followed by New Taipei City (0.66), and Hsinchu County (0.56). (5) Imported cases and countries of infection.

There was one imported case of pertussis in 2014 from Germany.

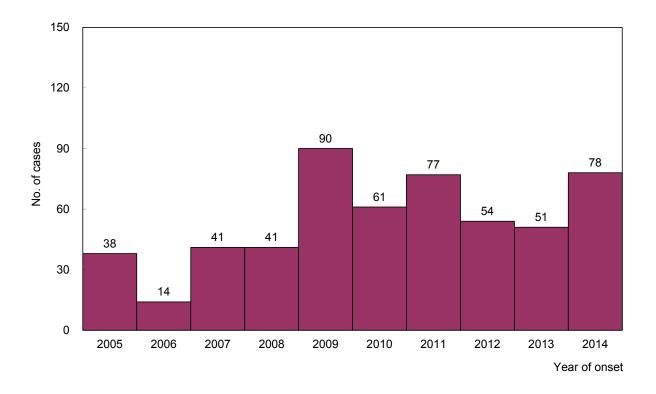


Figure 29 Number of confirmed Pertussis cases, 2005-2014

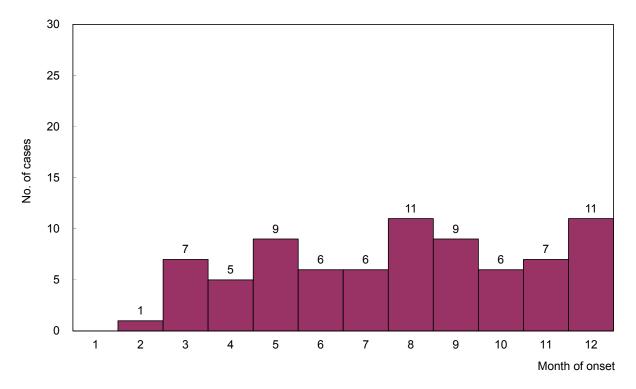


Figure 30 Number of confirmed Pertussis cases, 2014

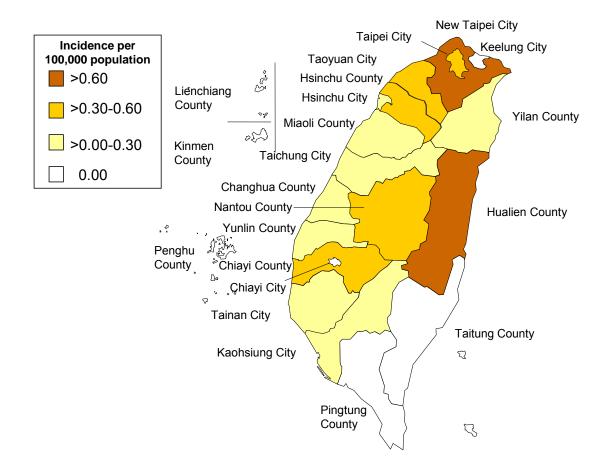


Figure 31 Geographical distribution by incidence of confirmed Pertussis cases, 2014

### **Meningococcal Meningitis**

In 2014, 3 confirmed cases of meningococcal meningitis (incidence rate: 0.01 per 100,000 population) were reported, which declined as compared with 6 confirmed cases (incidence rate: 0.03 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

All 3 confirmed cases were female (100.0%) with male to female ratio of 0.0:1.0.

(2) By age group

There were 2 cases in 0-1 year age group and 1 case in 40-64 years age group.

(3) By month

There are 2 cases in January and 1 case in June.

(4) By residential region

Confirmed cases were reported in 3 cities and counties. New Taipei City, Taoyuan City and Taichung City had 1 case each.

The incidence rate of confirmed cases per 100,000 population was the highest in Taoyuan City (0.05), followed by Taichung City (0.04), and New Taipei City (0.03).

(5) Imported cases and countries of infection

There were no imported cases of meningococcal meningitis in 2014.

(6) By serogroup

Following laboratory confirmation, all confirmed cases were identified as *Neisseria meningitidis* serogroup B.

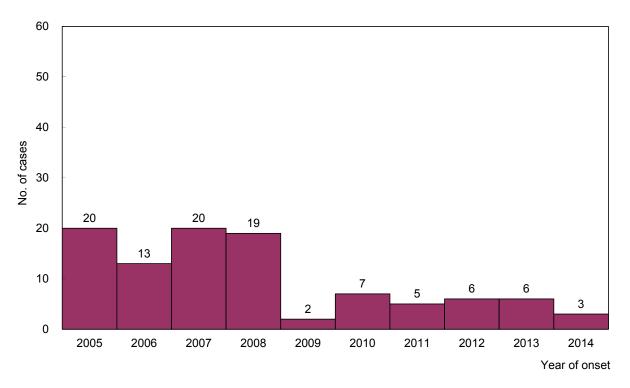


Figure 32 Number of confirmed Meningococcal Meningitis cases, 2005-2014

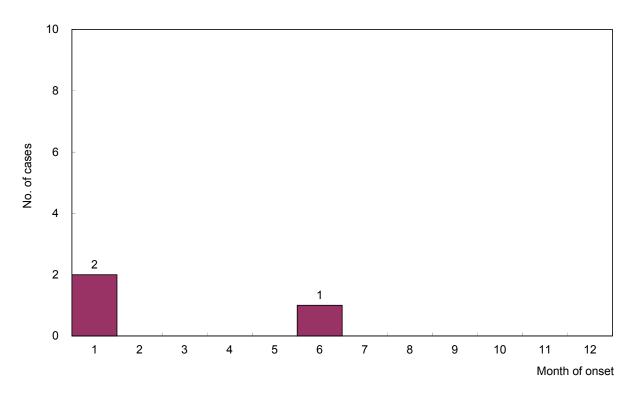


Figure 33 Number of confirmed Meningococcal Meningitis cases, 2014

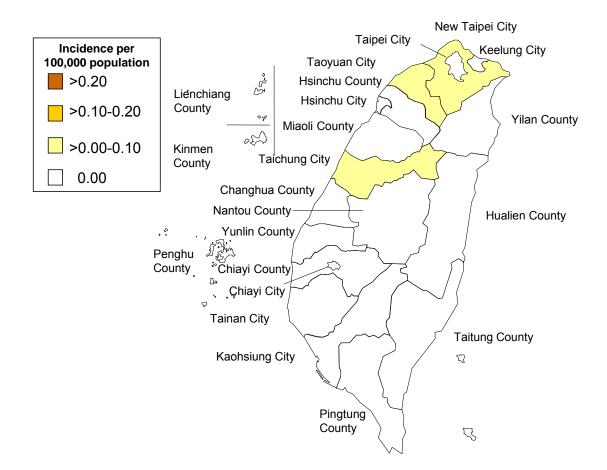


Figure 34 Geographical distribution by incidence of confirmed Meningococcal Meningitis cases, 2014

## Japanese Encephalitis

In 2014, 18 confirmed cases of Japanese encephalitis (incidence rate: 0.08 per 100,000 population) were reported, which increased as compared with 16 confirmed cases (incidence rate: 0.07 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 12 male cases (66.7%) and 6 female cases (33.3%) with male to female ratio of 2.0:1.0.

(2) By age group

By age group, there were 11 cases in 40-64 years age group, 4 cases in 65 years and over age group and 3 cases in 25-39 years age group.

(3) By month

The cases occurred mostly in warm seasons, with 10 cases in June, 3 cases each in July and October, and 2 cases in August.

(4) By residential region

Changhua County and Pingtung County had the highest number of incidents each with 4 confirmed cases reported, followed by Tainan City with 3 cases, Chiayi City and Kaohsiung City with 2 cases each, and Yilan County, Hsinchu County and Taichung City with 1 case each, whereas the other cities and counties had no confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Chiayi City (0.74), followed by Pingtung County (0.47), and Changhua County (0.31).

(5) Imported cases and countries of infection

There were no imported cases of Japanese encephalitis in 2014.

(6) By clinical symptoms

Among the confirmed cases, 14 cases had fever, 9 cases had disorder of consciousness, 7 cases had headache, 5 cases each had psychological symptoms (delirium, unconsciousness, etc.) or stiff neck, 2 cases had muscle cramps, and 1 case each had vomiting or encephalitic stimulation symptoms.

(7) Residential conditions or neighboring environment

Among the confirmed cases, 11 cases each lived nearby pigpens or paddy field, 7 cases lived nearby pigeonries, and 2 cases lived nearby ponds.

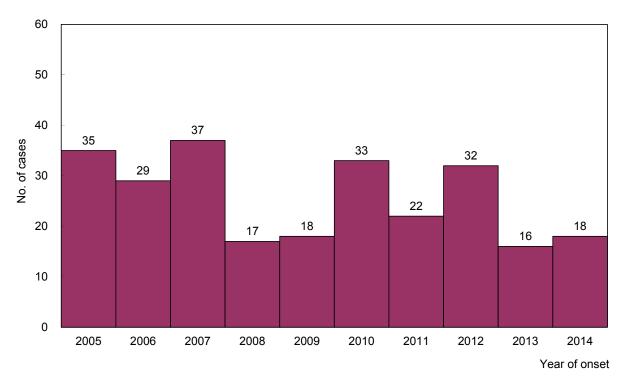


Figure 35 Number of confirmed Japanese Encephalitis cases, 2005-2014

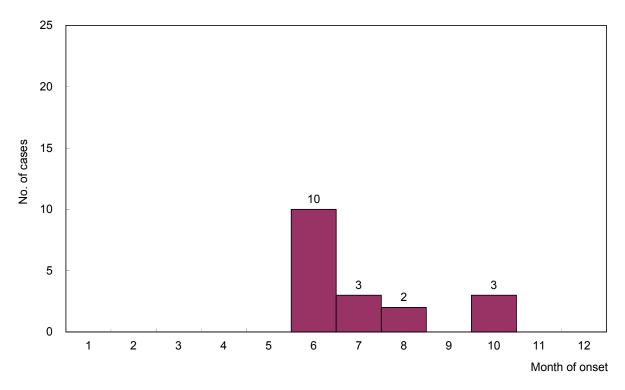


Figure 36 Number of confirmed Japanese Encephalitis cases, 2014

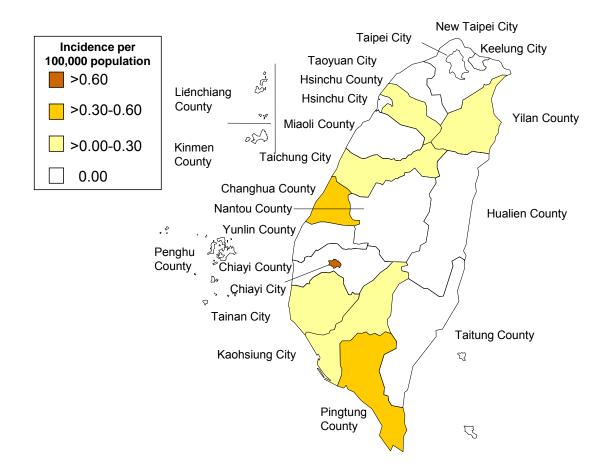


Figure 37 Geographical distribution by incidence of confirmed Japanese Encephalitis cases, 2014

## Acute Hepatitis A

In 2014, 117 confirmed cases of acute hepatitis A (incidence rate: 0.50 per 100,000 population) were reported, which decreased as compared with 139 confirmed cases (incidence rate: 0.60 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 67 male cases (57.3%) and 50 female cases (42.7%) with male to female ratio of 1.3:1.0.

(2) By age group

There were 69 cases in 25-39 years age group, 26 cases in 40-64 years age group, 10 cases in 15-24 years age group, 9 cases in 65 years and over age group, and 3 cases in 5-14 years age group.

(3) By month

Acute hepatitis A cases were reported in each month of the year. October had the highest number of confirmed cases with 26 cases reported, followed by 15 cases in March, 14 cases in January, 11 cases in February, 8 cases each in May, August and November, 7 cases in July, 6 cases in April, 5 cases each in September and December, and 4 cases in June.

(4) By residential region

New Taipei City had the highest number of incidents with 28 cases reported, followed by Taipei City and Taoyuan City with 18 cases each, Taichung City with 15 cases, Kaohsiung City with 10 cases, Yilan County and Changhua County with 5 cases each. The other cities and counties all had less than 5 cases reported, in which Miaoli County, Nantou County, Chiayi City, Taitung County, Penghu County, Kinmen County and Lienchiang County had no confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Yilan County (1.09), followed by Taoyuan City (0.88), and Keelung City (0.80).

(5) Imported cases and countries of infection

There were 49 imported cases of acute hepatitis A in 2014, including 15 cases from Philippines, 7 cases from Indonesia, 5 cases from Malaysia, 4 cases each from China, Thailand and Cambodia, 2 cases from Vietnam, and 1 case each from Myanmar, India, Nepal, USA, Korea, Fiji Islands, Nicaragua, and Senegal.

(6) Clinical symptoms

An epidemiological survey of 117 confirmed cases showed that in cases with symptoms (multiple answers are allowed), 55.6% (65 person-times) had tiredness, 47% (55 person-times) had yellowing of the white of eye or skin, 41% (48 person-times) has stomach discomfort, 41% (48 person-times) had abdominal pain, 35% (41 person-times) had nausea, 34.2% (40 person-times) had tawny urine, 27.4% (32 person-times) had fever, and 25.6% (30 person-times) had vomiting.

(7) Source of drinking water and dietary habits

The epidemiological investigation of 117 confirmed cases showed that the major sources of residential drinking water (multiple answers are allowed) are tap water which accounted for 81.2% (95 person-times), packaged water which accounted for 24.8% (29 person-times); in addition, spring water accounted for 8.5% (10 person-times), and groundwater accounted for 0.9% (1 person-time). As for dietary habits (multiple answers allowed), taking food at snack booths accounted for the largest percentage, accounting for 65% (76 person-times), followed by eating in restaurants accounting for 40.2% (47 person-times), and taking nutritional lunch at school or take-out lunch box accounting for 11.1% (13 person-times).

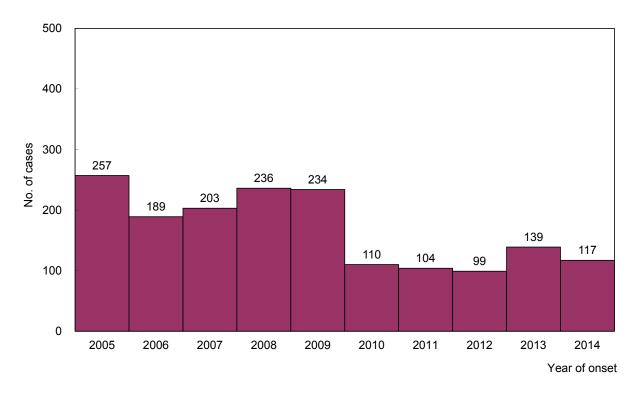


Figure 38 Number of confirmed Acute Hepatitis A cases, 2005-2014

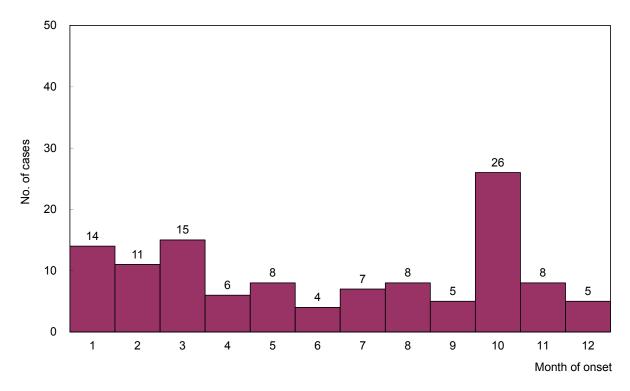


Figure 39 Number of confirmed Acute Hepatitis A cases, 2014

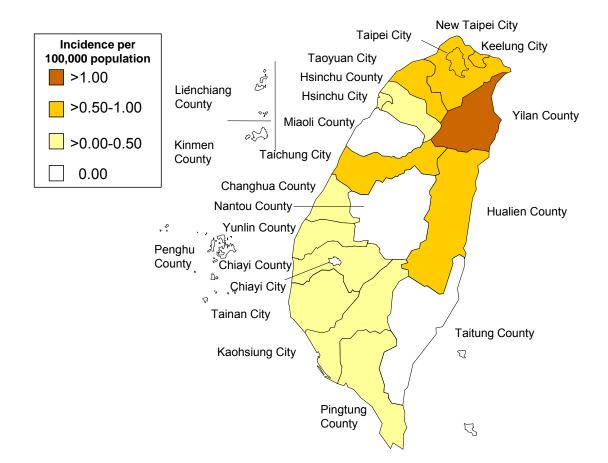


Figure 40 Geographical distribution by incidence of confirmed Acute Hepatitis A cases, 2014

# Acute Hepatitis B

In 2014, 120 confirmed cases of acute hepatitis B (incidence rate: 0.51 per 100,000 population) were reported, which increased as compared with 97 confirmed cases (incidence rate: 0.42 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 76 male cases (63.3%) and 44 female cases (36.7%) with male to female ratio of 1.7:1.0.

(2) By age group

There were 57 cases in 25-39 years age group, 47 cases in 40-64 years age group, 8 cases in 65 years and over age group, 7 cases in 15-24 years age group, and 1 case in 0-1 year age group.

(3) By month

Confirmed cases were reported in each month of the year without apparent concentration in any of the months. Except for July with 17 cases, November with 15 cases, June and September with 12 cases each, and April with 11 cases, the other months of year all had less than 10 cases reported.

(4) By residential region

New Taipei City and Taoyuan City had the most confirmed cases with 21 cases each reported, followed by Taipei City with 18 cases, and Tainan City and Kaohsiung City each with 10 cases. The other cities and counties all had 10 or less cases reported, in which Taitung County, Penghu County, Kinmen County, and Lienchiang County had no confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Miaoli County (1.24), followed by Keelung City (1.07) and Taoyuan City (1.02).

(5) Imported cases and countries of infection

There were 3 imported cases of acute hepatitis B in 2014, including 2 cases from China and 1 case from Hong Kong.

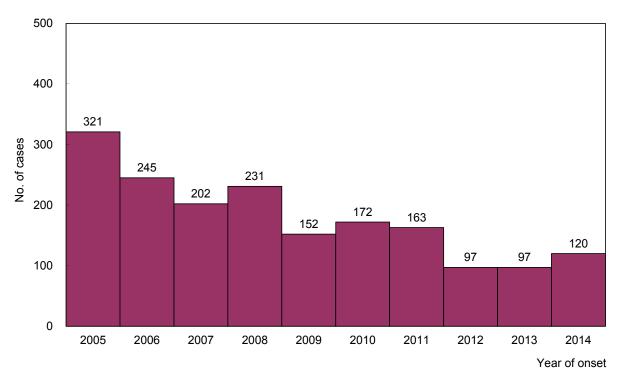


Figure 41 Number of confirmed Acute Hepatitis B cases, 2005-2014

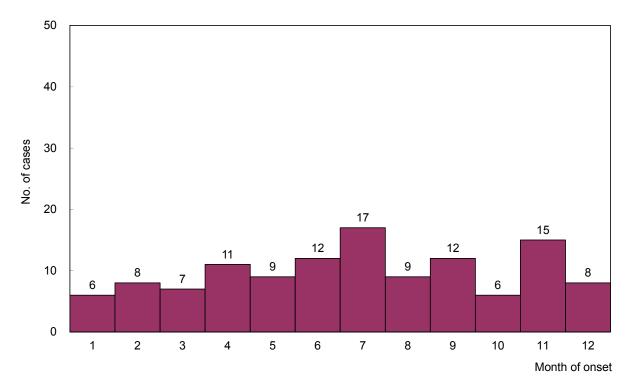


Figure 42 Number of confirmed Acute Hepatitis B cases, 2014

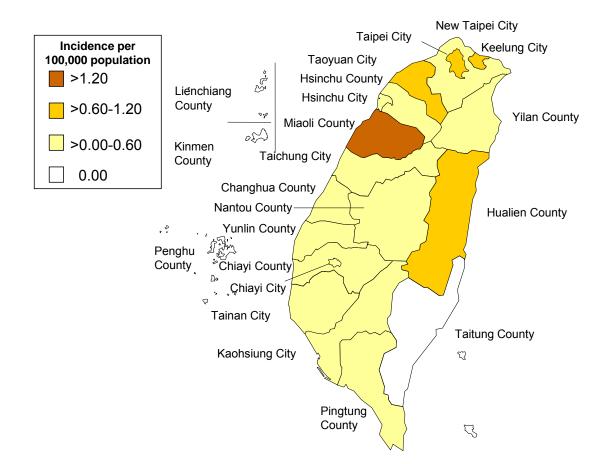


Figure 43 Geographical distribution by incidence of confirmed Acute Hepatitis B cases, 2014

## Acute Hepatitis C

In 2014, 205 confirmed cases of acute hepatitis C (incidence rate: 0.88 per 100,000 population) were reported. The data of confirmed cases are analyzed as follows:

(1) By gender

There were 135 male cases (65.9%) and 70 female cases (34.1%) with male to female ratio of 1.9:1.0.

(2) By age group

There were 91 cases in 40-64 years age group, 57 cases in 25-39 years age group, 47 cases in 65 years and over age group, and 10 cases in 15-24 years age group.

(3) By month

Acute hepatitis C cases were reported in each month of the year. October had the highest number of confirmed cases with 30 cases reported, followed by 23 cases in December, 20 cases in September, 19 cases in May, 18 cases each in March and April, 17 cases each in June and August, 16 cases in November, 12 cases each in February and July, and 3 cases in January.

(4) By residential region

With the exception of Lienchiang County, all other cities and counties have confirmed acute hepatitis C cases reported. New Taipei City had the most confirmed cases with 32 cases reported, followed by Taipei City with 31 cases, Kaohsiung City with 22 cases, Taoyuan City and Tainan City with 18 cases, Keelung City with 17 cases, Hualien County with 10 cases, Taichung City and Yunlin County with 9 cases each, Yilan County with 6 cases, Hsinchu City and Chiayi County with 5 cases each, while the rest of cities and counties had less than 5 cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Keelung City (4.55), followed by Penghu County (3.96), and Hualien County (3.00).

(5) Imported cases and countries of infection

There were no imported cases of acute hepatitis C in 2014.

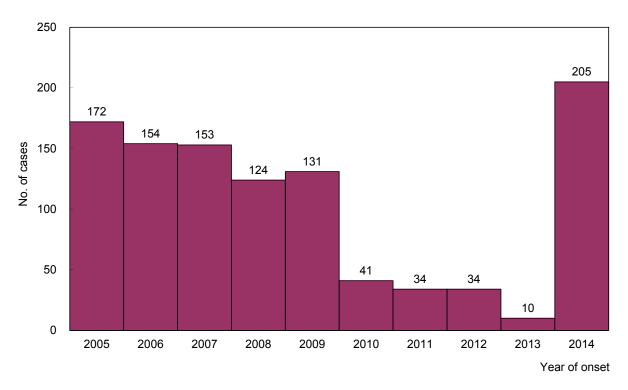


Figure 44 Number of confirmed Acute Hepatitis C cases, 2005-2014

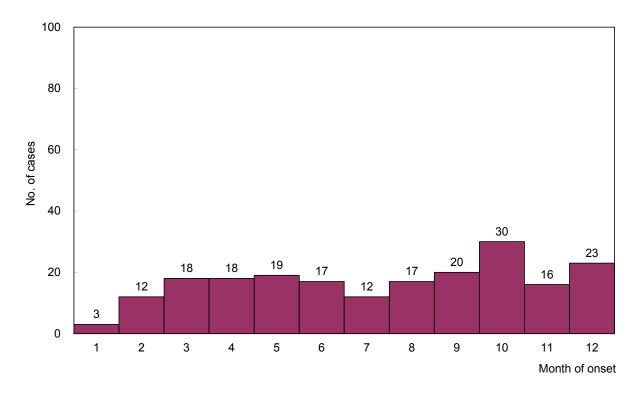


Figure 45 Number of confirmed Acute Hepatitis C cases, 2014

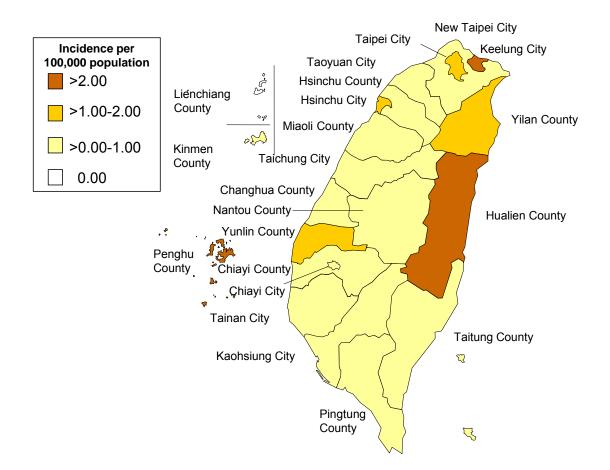


Figure 46 Geographical distribution by incidence of confirmed Acute Hepatitis C cases, 2014

## Scrub Typhus

In 2014, 414 confirmed cases of scrub typhus (incidence rate: 1.77 per 100,000 population) were reported, which decreased as compared with 538 confirmed cases (incidence rate: 2.30 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 257 male cases (62.1%) and 157 female cases (37.9%) 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 188 cases in 40-64 years age group, 92 cases in 25-39 years age group, 68 cases in 65 years and over age group, 45 cases in 15-24 years age group, 16 cases in 5-14 years age group, 4 cases in 1-4 years age group, and 1 case in 0-1 year age group.

(3) By month

Confirmed cases were reported in each month of the year that concentrated mainly in May-July and September. June had the highest number of incidents with 88 cases reported, followed by July with 73 cases, May with 58 cases, September with 52 cases, October with 34 cases, December with 31 cases, August with 25 cases, January with 21 cases, November with 18 cases, April with 9 cases, February with 4 cases and March with 1 case.

(4) By residential region

Penghu County had the most confirmed cases with 96 cases reported, followed by Taitung County with 63 cases, Kinmen County with 60 cases, Kaohsiung City with 39 cases, Hualien County with 34 cases, Nantou County and Lienchiang County with 20 cases each, Taipei City and Taoyuan City with 14 cases each, and Pingtung County with 10 cases. The other cities and counties all had 10 or less cases reported, in which Keelung City, Hsinchu City, Yunlin County and Chiayi City had no confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Lienchiang County (162.13), followed by Penghu County (94.98), Kinmen County (48.30), Taitung County (28.04) and Hualien County (10.19), whereas the other cities and counties had incidence rate below 10.00.

(5) Imported cases and countries of infection

There were 2 imported cases of scrub typhus in 2014, including 1 case from Hong Kong and 1 case from Canada.

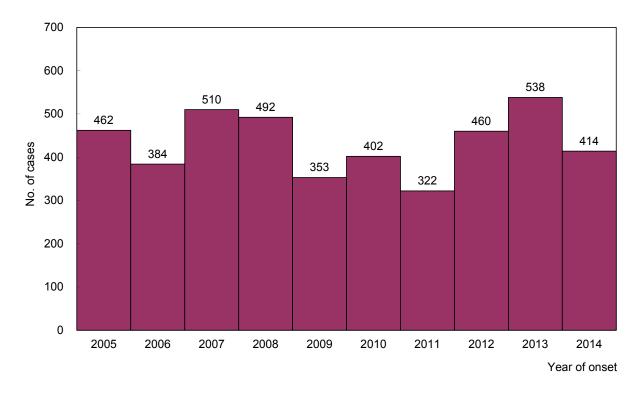


Figure 47 Number of confirmed Scrub Typhus cases, 2005-2014

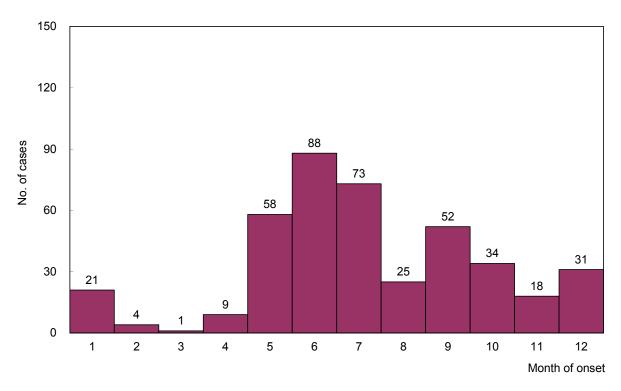


Figure 48 Number of confirmed Scrub Typhus cases, 2014

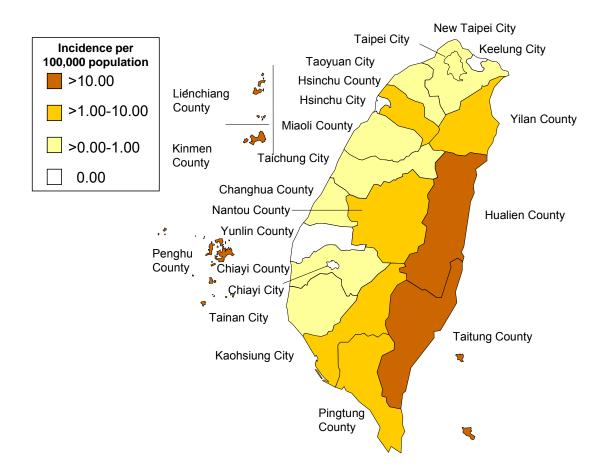


Figure 49 Geographical distribution by incidence of confirmed Scrub Typhus cases, 2014

## Legionnaires' Disease

In 2014, 135 confirmed cases of legionnaires' disease (incidence rate: 0.58 per 100,000 population) were reported, which increased as compared with 115 confirmed cases (incidence rate: 0.49 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 104 male cases (77.0%) and 31 female cases (23.0%) with male to female ratio of 3.4:1.0.

(2) By age group

All cases occurred in adults over 25 years of age. In all, there were 75 cases in 65 years and over age group, followed by 54 cases in 40-64 years age group, and 6 cases in 25-39 years age group.

(3) By month

Confirmed cases were reported in each month of the year where May had the highest number of incidents with 18 cases reported, followed by November with 16 cases, August and December with 15 cases each, January with 13 cases, July and October with 11 cases each, June with 10 cases, March and September with 8 cases each, 6 cases in February, and 4 cases in April.

(4) By residential region

New Taipei City had the highest number of incidents with 34 cases reported, followed by Kaohsiung City with 24 cases, Changhua County with 15 cases, Taipei City with 13 cases, Taoyuan City and Taichung City with 9 cases each, Tainan City and Pingtung County with 7 cases each, Miaoli County with 5 cases, while the rest of cities and counties had less than 5 cases reported. Keelung City, Hsinchu City, Chiayi City, Taitung County, Penghu County and Lienchiang County had no confirmed cases.

The incidence rate of confirmed cases per 100,000 population was the highest in Changhua County (1.16), followed by Hualien County (0.90) and Miaoli County (0.88).

(5) Imported cases and countries of infection

There were 6 imported cases of legionnaires' disease in 2014, including 3 cases from China, 2 cases from Thailand and 1 case from France.

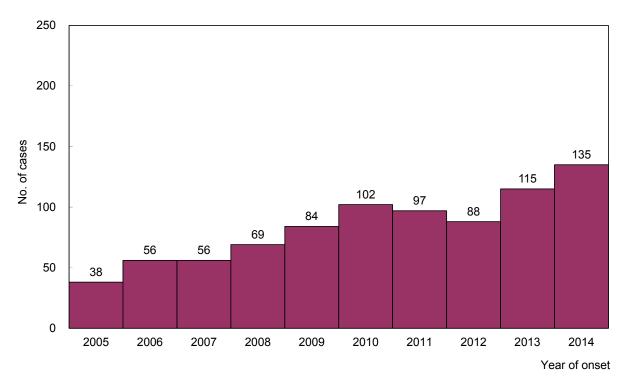


Figure 50 Number of confirmed Legionnaires' Disease cases, 2005-2014

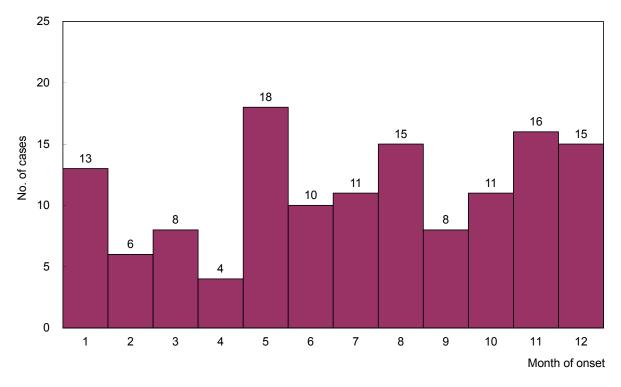


Figure 51 Number of confirmed Legionnaires' Disease cases, 2014

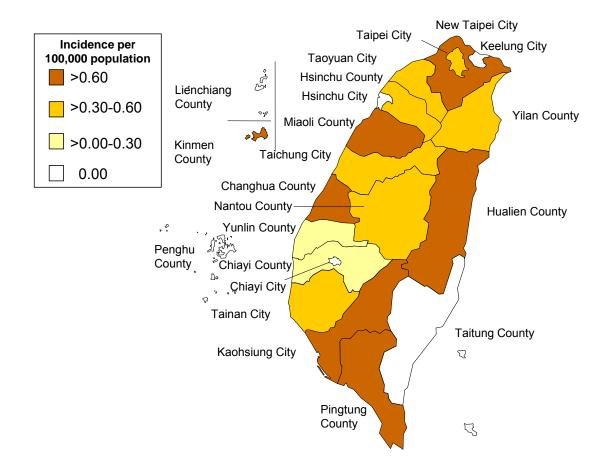


Figure 52 Geographical distribution by incidence of confirmed Legionnaires' Disease cases,

### **Dengue Fever**

In 2014, 15,732 confirmed cases of dengue fever (incidence rate: 67.22 per 100,000 population) were reported, which increased sharply as compared with 860 confirmed cases (incidence rate: 3.68 per 100,000 population) in 2013.

There were 136 confirmed cases of dengue hemorrhagic fever/dengue shock syndrome (incidence rate: 0.58 per 100,000 population) reported in 2014, which also increased as compared with 16 confirmed cases (incidence rate: 0.07 per 100,000 population) in 2013.

Of the 15,732 confirmed cases, 240 cases were imported, while 15,492 cases were indigenous. Of the 136 confirmed cases of dengue hemorrhagic fever, all were indigenous (132 cases in Kaohsiung City and 2 cases each in Tainan City and Pingtung County). The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

In the 240 imported cases, there were 141 male cases (58.8%) and 99 female cases (41.3%) with male to female ratio of 1.4:1.0.

In the 15,492 indigenous cases, there were 7,699 male cases (49.7%) and 7,793 female cases (50.3%) with male to female ratio of 1.0:1.0.

(2) By age group

In the 240 imported cases, 2 cases (0.8%) were in 1-4 years age group, 7 cases (2.9%) were in 5-14 years age group, 40 cases (16.7%) were in 15-24 years age group, 116 cases (48.3%) were in 25-39 years age group, 65 cases (27.1%) were in 40-64 years age group, and 10 cases (4.2%) were in 65 years and over age group.

In the 15,492 indigenous cases, 7 cases (<0.1%) were in 0-1 year age group, 145 cases (0.9%) were in 1-4 years age group, 1,120 cases (7.2%) were in 5-14 years age group, 1,880 cases (12.1%) were in 15-24 years age group, 3,344 cases (21.6%) were in 25-39 years age group, 6,704 cases (43.3%) were in 40-64 years age group, and 2,292 cases (14.8%) were in 65 years and over age group.

(3) By month

In the 240 imported cases, confirmed cases were reported in each month of the year. In all, September had the highest number of incidents with 35 cases reported, followed by 32 cases in August, 30 cases in October, 18 cases in April, June, November and December each, 16 cases in July, 15 cases each in February and March, 13 cases in May and 12 cases in January.

In the 15,492 indigenous cases, confirmed cases were reported in each month of the year except for March and April. In all, September through December had the highest number of incidents, in particular October that had 5,485 cases reported, followed by 4,957 cases in November, 2,247 cases in September, 1,346 cases in December, 959 cases in August, 379 cases in July, 93 cases in June, 12 cases each in January and May, and 2 cases in February.

(4) By residential region

In the 240 imported cases, the number of incidents was the highest in Taipei City with 56 cases reported, followed by 44 cases in Kaohsiung City, 38 cases in New Taipei City, 32 cases in Taichung City, 21 cases in Taoyuan City, 19 cases in Tainan City, and 5 cases

each in Hsinchu County, Changhua County and Pingtung County. The other cities and counties all had less than 5 imported cases reported, in which Taitung County, Yilan County, Penghu County, Kinmen County and Lienchiang County did not have confirmed imported cases.

In the 15,492 indigenous cases, confirmed cases were reported in all cities and counties except for Keelung City, Kinmen County and Lienchiang County. In all, Kaohsiung City had the highest number of incidents with 14,999 cases reported, followed by 223 cases in Pingtung County, 156 cases in Tainan City, 16 cases each in New Taipei City, Taitung County and Penghu County, 15 cases in Taichung City, 13 cases in Taipei City, 7 cases in Yunlin County, 6 cases in Chiayi City, whereas the rest of cities and counties had less than 5 cases reported.

Overall, the incidence rate of confirmed cases per 100,000 population was the highest in Kaohsiung City (541.23), followed by Pingtung County (26.82), and Penghu County (15.83).

(5) Imported cases and countries of infection

In the 240 imported cases, there were 71 cases (29.6%) from Malaysia, 58 cases (24.2%) from Indonesia, 33 cases (13.8%) from Philippines, 23 cases (9.6%) from China, 12 cases (5.0%) from Singapore, 10 cases each (4.2% respectively) from Thailand and Myanmar, 9 cases (3.8%) from Vietnam, 3 cases each (1.3% respectively) from Cambodia and India, 2 cases each (0.8% respectively) form Nauru and Bangladesh, 1 case each (0.4% respectively) from Japan, France, Tuvalu and Saudi Arabia.

(6) By virus type

In the 240 imported cases, 52 cases were caused by dengue virus type 1, 40 cases by type 2, 22 cases by type 3, and 9 cases by type 4. The other 117 cases were undetermined.

In the 15,492 indigenous cases, 68 cases were caused by dengue virus type 1, 2 cases by type 2, 0 case by type 3, and 0 case by type 4. The other 15,422 cases were undetermined.

(7) By clinical symptoms

In the 15,732 confirmed cases, 15,711 cases developed clinical symptoms, while the other 21 cases were asymptomatic. In the 240 imported cases, 6 cases were asymptomatic; in the 15,492 indigenous cases, 15 cases were asymptomatic.

Virus type/ infection source	DEN-1	DEN-2	DEN-3	DEN-4	Undetermined	Total	
Malaysia	23	20	2	1	25	71	
Indonesia	6	8	18	2	24	58	
Philippines	7	4	1	2	19	33	
China	4	-	-	-	19	23	
Singapore	5	1	-	1	5	12	
Thailand	1	3	-	1	5	10	
Myanmar	2	2	-	1	5	10	
Vietnam	2	1	-	1	5	9	
India	1	-	-	-	2	3	
Cambodia	1	-	1	-	1	3	
Bangladesh	-	-	-	-	2	2	
Nauru	-	-	-	-	2	2	
Japan	-	-	-	-	1	1	
Tuvalu	-	1	-	-	-	1	
Saudi Arabia	-	-	-	-	1	1	
France	-	-	-	-	1	1	
Taiwan	68	2	-	-	15,422	15,492	
Total	120	42	22	9	15,539	15,732	

#### Table 26 Virus type and infection source of confirmed Dengue Fever cases, 2014

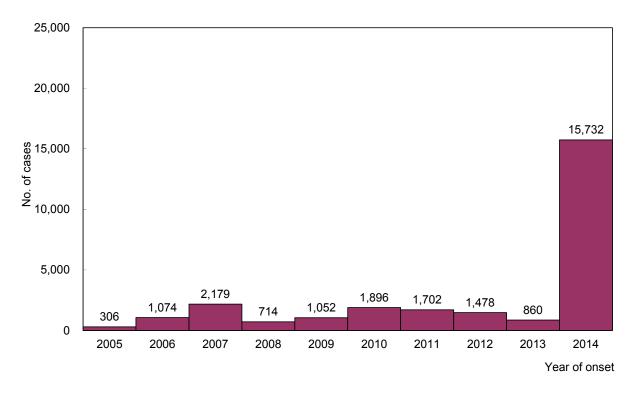
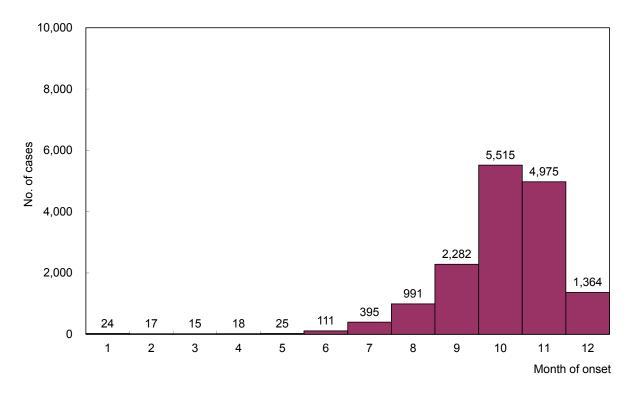
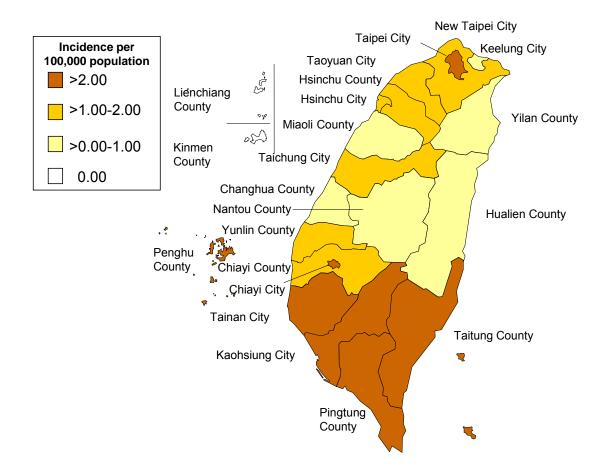


Figure 53 Number of confirmed Dengue Fever cases, 2005-2014









## **Enteroviruses Infection with Severe Complications**

In 2014, 6 confirmed cases of enteroviruses infection with severe complications (incidence rate: 0.03 per 100,000 population) were reported, which declined as compared with 12 confirmed cases (incidence rate: 0.05 per 100,000 population) in 2013. The data of confirmed cases in 2014 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

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

Of the 3 cases in 0-1 year age group, 1 case was less than 1 month old, 1 case was 1 month old and 1 case was 9 months old.

(3) By month

There were 3 confirmed cases in May, 1 case each in April, June and October, whereas the other months of the year did not have confirmed cases reported.

(4) By residential region

Taichung City had the most confirmed cases with 2 cases reported, followed by New Taipei City, Changhua County, Chiayi City and Kaohsiung City with 1 case each. The other cities and counties had no confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Chiayi City (0.37), followed by Changhua County (0.08), and Taichung City (0.07).

(5) Imported cases and countries of infection

There was no imported case of enteroviruses infection with severe complications in 2014.

(6) Pathogen identification

After assay with enzyme-linked immunosorbent assays (ELISA) of IgM, virus culture, and RT-PCR, Coxsackie virus was the main virus isolated in 4 confirmed cases (Coxsackie A2, A5, A16 and B5 in one case each). There was 1 case involving EV71 in combination with other type of enterovirus (EV71 combined with Coxsackie A4), and 1 case of Echovirus 11.

	2011		2012		2013		2014				
	No. (	%)									
>=0, <7m	4 (	6.8)	21 (	13.7)	2 (	16.7)	2 (	33.3)			
>=7m, <1yr	4 (	6.8)	21 (	13.7)	- (	- )	1 (	16.7)			
>=1, <4 yrs	34 (	57.6)	75 (	49.0)	7 (	58.3)	3 (	50.0)			
>=4, <7 yrs	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	59 (	100.0)	153 (	100.0)	12 (	100.0)	6 (	100.0)			

 Table 27 Number of confirmed Enteroviruses Infection with Severe Complications cases by age, 2011-2014

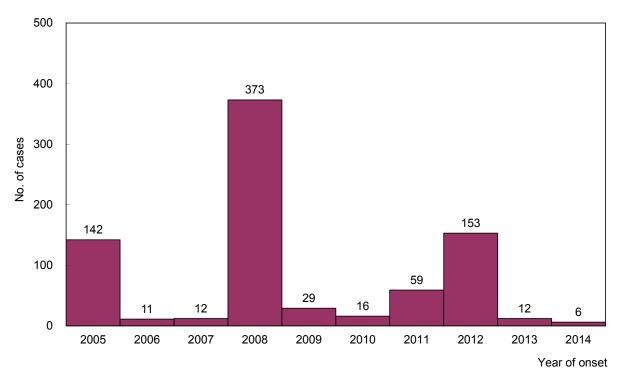


Figure 56 Number of confirmed Enteroviruses Infection with Severe Complications cases,

2005-2014

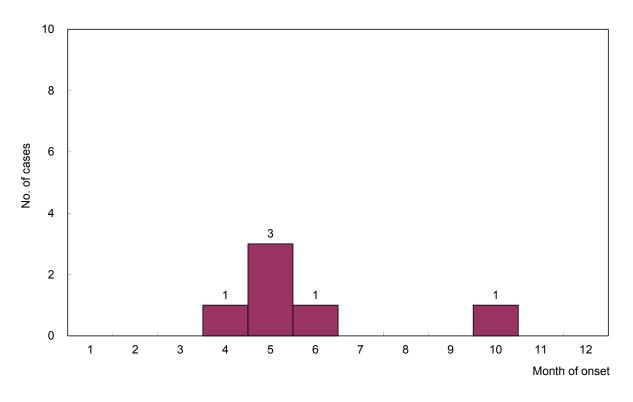


Figure 57 Number of confirmed Enteroviruses Infection with Severe Complications cases, 2014

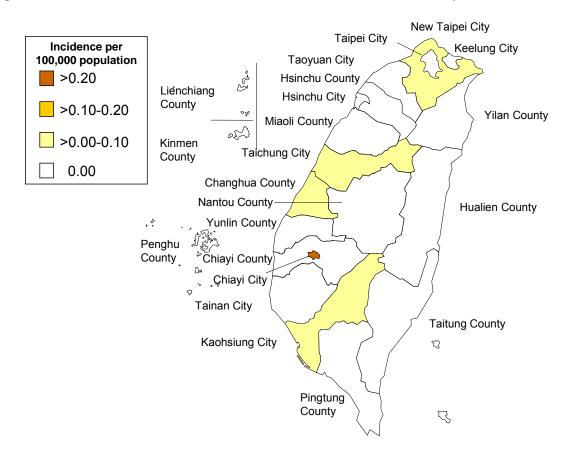


Figure 58 Geographical distribution by incidence of confirmed Enteroviruses Infection with Severe Complications cases, 2014

## Malaria

In 2014, 19 confirmed cases of malaria (incidence rate: 0.08 per 100,000 population) were reported, which increased as compared with 13 confirmed cases (incidence rate: 0.06 per 100,000 population) in 2013. All cases reported in 2014 were imported. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 15 male cases (78.9%) and 4 female cases (21.1%) with male to female ratio of 3.8:1.0.

(2) By age group

The cases occurred mostly in 25-39 years age groups with 8 cases reported, followed by 40-64 years age group with 7 cases, 15-24 years age group with 2 cases, and 5-14 years age group and 65 years and over age group with 1 case each.

(3) By month

Except for January and August, there were confirmed cases in the other months of the year. In all, there were 4 cases in October, 3 cases each in July and September, 2 cases each in April and December, and 1 case each in February, March, May, June and November.

(4) By residential region

New Taipei City had the highest number of incidents with 6 cases reported, followed by Taipei City, Hsinchu City, Tainan City and Kaohsiung City with 2 cases each, and Keelung City, Changhua County, Nantou County, Yunlin County and Hualien County with 1 case each. The other cities and counties had no confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Hsinchu City (0.46), followed by Hualien County (0.30) and Keelung City (0.27).

(5) Imported cases and countries of infection

In the 19 imported cases, 3 cases (15.8%) were from Asia, specifically 2 cases from India and 1 case from Vietnam; 16 cases (84.2%) were from Africa, specifically 3 cases each from Cote d'Ivoire and Burkina Faso, 2 cases each from Nigeria and Ghana, and 1 case each from Central African Republic, Cameroon, Ethiopia, Kenya, Gabon and Malawi.

(6) Types of infectious protozoan

By the types of infectious protozoa, there were 10 cases of *P. falciparum* infection, 4 cases of *Plasmodium vivax* infection, 2 cases of *P. malariae* infection and mixed infection each, and 1 case of *P. ovale*.

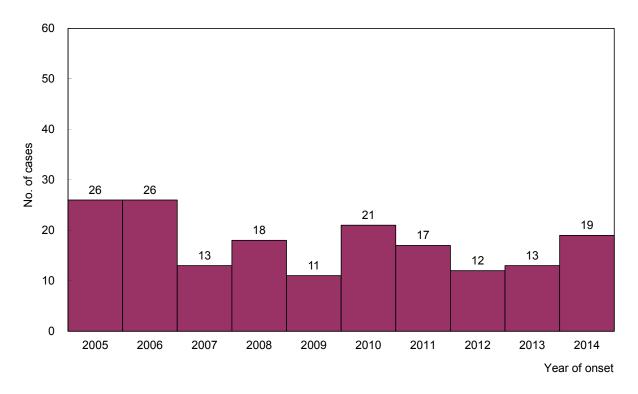


Figure 59 Number of confirmed imported Malaria cases, 2005-2014

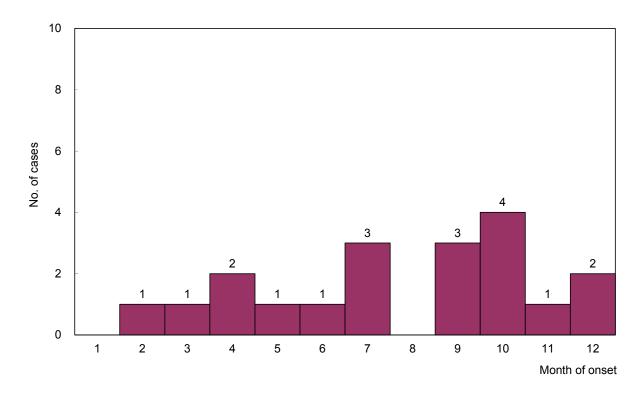


Figure 60 Number of confirmed imported Malaria cases, 2014

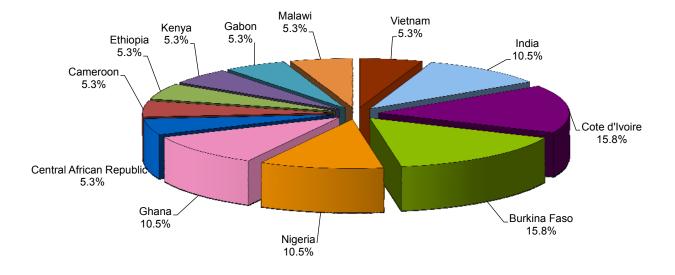


Figure 61 Infections source of confirmed imported Malaria cases, 2014

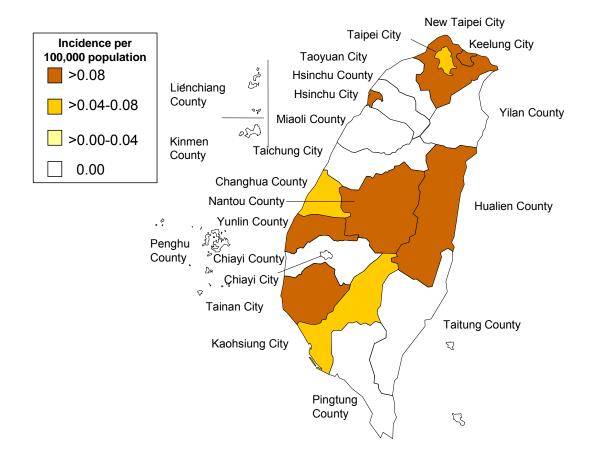


Figure 62 Geographical distribution by incidence of confirmed imported Malaria cases, 2014

### Shigellosis

In 2014, 132 confirmed cases of shigellosis (incidence rate: 0.56 per 100,000 population) were reported, of which 117 cases were imported. In comparison with 155 confirmed cases (incidence rate: 0.66 per 100,000 population) in 2013 of which 131 cases were imported, the number of cases decreased in 2014. The data of confirmed cases in 2014 are analyzed as follows:

#### (1) By gender

In the 117 imported cases, there were 29 male cases (24.8%) and 88 female cases (75.2%) with male to female ratio of 0.3:1.0.

In the 15 indigenous cases, there were 10 male cases (66.7%) and 5 female cases (33.3%) with male to female ratio of 2.0:1.0.

(2) By age group

In the 117 imported cases, there were 78 cases in 25-39 years age group, 27 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 15 indigenous cases, there were 6 cases in 5-14 years age group, 4 cases in 25-39 years age group, 3 cases in 40-64 years age group, 1 case each in 1-4 and 65 years and over age groups.

(3) By month

In the 117 imported cases, confirmed cases were reported in each month of the year where May had the highest number of incidents with 15 confirmed cases reported, followed by 12 cases each in January and October, 11 cases each in March, April, and June, 10 cases in December, 9 cases in February, 8 cases in July, 7 cases in August, 6 cases in September and 5 cases in November.

In the 15 indigenous cases, confirmed cases were reported in each month of the year except for January, June, July and November. December had the highest number of incidents with 5 confirmed cases reported, followed by 3 cases in March, 2 cases in February, and 1 case each in April, May, August, September and October.

(4) By residential region

In the 117 imported cases, New Taipei City had the highest number of incidents with 34 confirmed cases reported, followed by Taipei City with 29 cases, Taoyuan City with 17 cases, Taichung City with 11 cases, Yilan County and Keelung City with 7 cases each, Taitung County with 3 cases, Hsinchu County and Chiayi County with 2 cases each, and Changhua County, Tainan City, Kaohsiung City, Hualien County and Kinmen County with 1 case each. The other cities and counties had no confirmed imported cases.

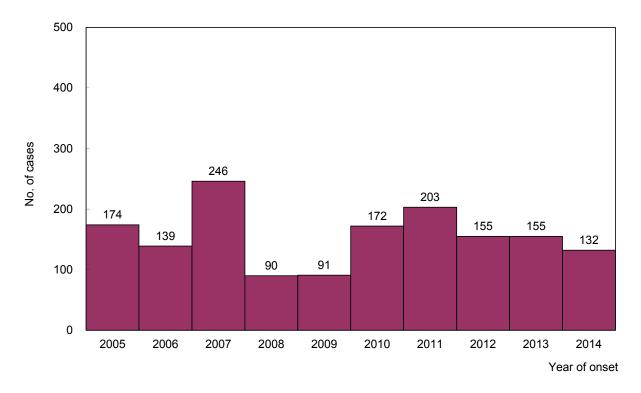
In the 15 indigenous cases, Hualien County had the highest number of incidents with 6 confirmed cases reported, followed by Taoyuan City with 4 cases, New Taipei City with 2 cases, and Taipei City, Hsinchu County and Penghu County with 1 case each. The other cities and counties had no confirmed indigenous cases.

In all, the incidence rate of confirmed cases per 100,000 population was the highest in

Hualien County (2.10), followed by Keelung City (1.87) and Yilan County (1.53).

(5) Imported cases and countries of infection

In the 117 imported cases, 101 cases were from Indonesia, 6 cases from Cambodia, 4 cases from Vietnam, 3 cases from Thailand, 2 cases from India and 1 case from Myanmar.





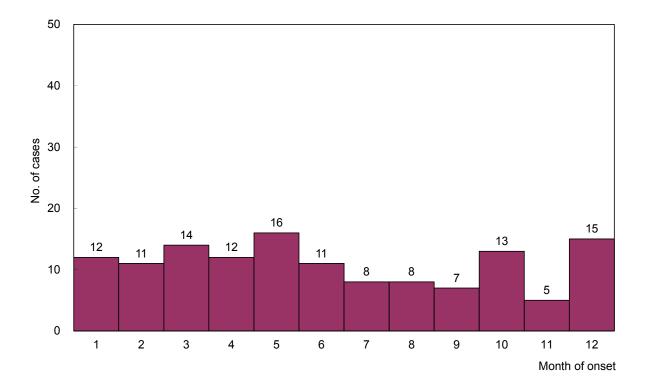


Figure 64 Number of confirmed Shigellosis cases, 2014

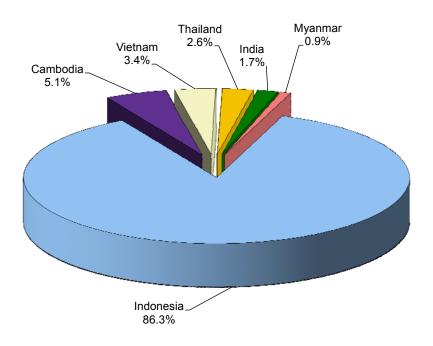


Figure 65 Infection source of confirmed imported Shigellosis cases, 2014

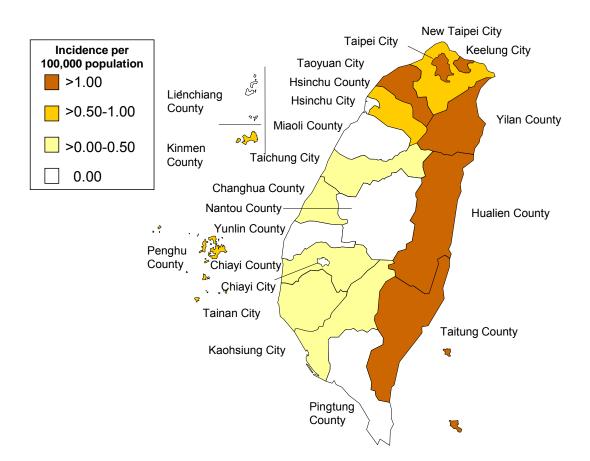


Figure 66 Geographical distribution by incidence of confirmed Shigellosis cases, 2014

## Severe Complicated Influenza

In 2014, 1,721 confirmed cases of severe complicated influenza (incidence rate: 7.35 per 100,000 population) were reported. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 985 male cases (57.2%) and 736 female cases (42.8%) with male to female ratio of 1.3:1.0.

(2) By age group

There were 702 cases in 65 years and over age group, 629 cases in 40-64 years age group, 198 cases in 25-39 years age group, 64 cases in 15-24 years age group, 59 cases in 1-4 years age group, 58 cases in 5-14 years age group, and 11 cases in 0-1 year age group.

(3) By month

The confirmed cases were concentrated in January through April with more than 100 cases reported in each of the months. February had the highest number of incidents with 564 cases reported, followed by January with 463 cases, March with 310 cases, April with 107 cases, May with 84 cases, June with 75 cases, July with 61 cases, September with 25 cases, August with 18 cases, October and December with 5 cases each, and November with 4 cases.

(4) By residential region

All cities and counties had confirmed cases of severe complicated influenza reported in 2014, except for Lienchiang County. New Taipei City had the highest number of incidents with 524 confirmed cases reported, followed by Taipei City with 278 cases, Kaohsiung City with 209 cases, Taoyuan City with 120 cases, Tainan City with 114 cases, Changhua County with 70 cases, Pingtung County with 60 cases, Taichung City with 59 cases, Hualien County with 44 cases, Yunlin County with 43 cases, Nantou County with 41 cases, Taitung County with 37 cases, whereas 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 (16.47), followed by New Taipei City (13.23), and Hualien County (13.19).

(5) Imported cases and countries of infection

There were 8 imported cases of severe complicated influenza in 2014, including 7 cases from China and 1 case from Thailand.

(6) By virus type

By virus type, there were 1,469 cases associated with influenza virus Type A (835 cases of H1N1, 612 cases of H3, 21 cases untyped, and 1 case of simultaneous infection with AH3 and H1N1), and 252 cases associated with influenza virus Type B.

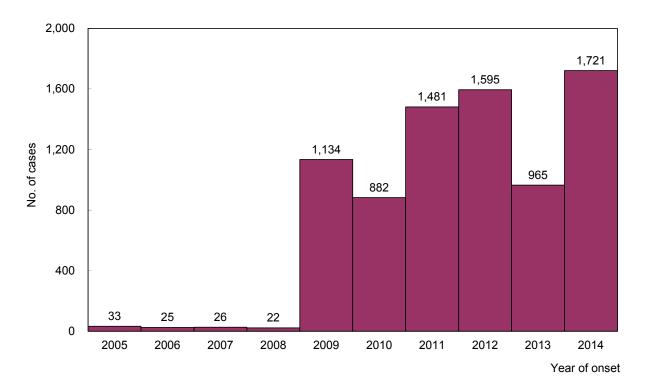


Figure 67 Number of confirmed Severe Complicated Influenza cases, 2005-2014

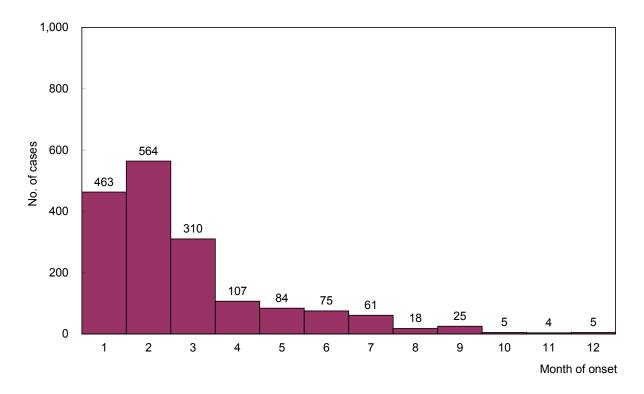


Figure 68 Number of confirmed Severe Complicated Influenza cases, 2014

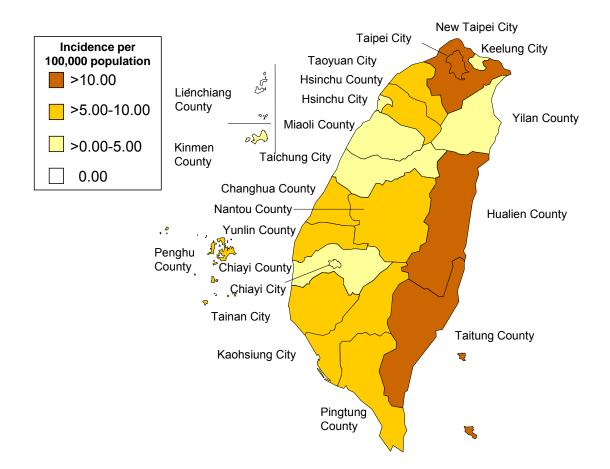


Figure 69 Geographical distributions by incidence of confirmed Severe Complicated Influenza cases, 2014

#### Government-funded influenza vaccination coverage rate

In the government-funded influenza vaccination program for influenza season 2013-2014, as recommended by the Advisory Committee on Immunization Practices (ACIP), trivalent inactivated influenza vaccines (TIV) were used in seven 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, people with catastrophic illness and adults 60 years of age and older who have medical conditions. The influenza vaccine uptake rates obtained via the Influenza Vaccine Information System (IVIS) from October 1, 2013 to September 30, 2014, were described below:

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

The coverage rates for each group were as below: the elders aged 65 years and above: 1,097,249 persons /41.1%; pre-school children aged above six months with at least one dose: 338,418 persons /30.2%; elementary school students from grade one through six: 933,735 persons /72.0%; staff in nursing homes and other long-term care facilities: 29,301 persons /96.2%; people with catastrophic illness: 42,437 persons; healthcare workers: 250,951 persons /71.5%; public health personnel: 22,899 persons / 76.1%; poultry or livestock farmers and animal health inspectors: 14,866 persons /81.7%.

#### (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 92% 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 94.4%. By the end of January 2014, a total of 96% of the vaccines had been administered. After end of February 2014, the percentage of vaccines administered was kept at 97%.

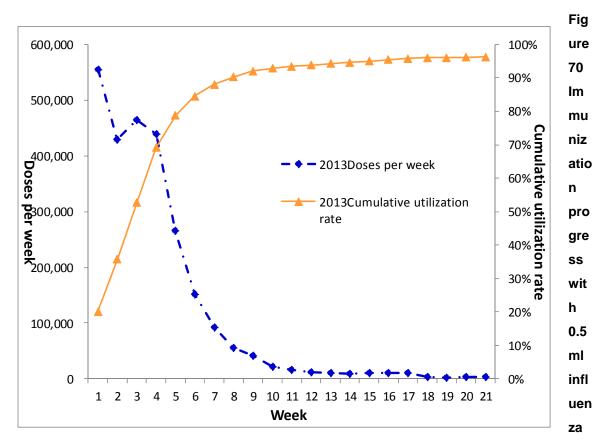
As for 0.25mL influenza vaccines, the percentage of the vaccines administered reached 75.9% by end of November since the vaccines became available. The percentage then increased slowly, and reached 93.4% by end of December. At the end of January 2014, 98.6% of the vaccines had been administered, and after end of February 2014, the percentage was kept at 99.5%.

High-risk groups	No. of Vaccinee	Coverage rates
Elders aged more than 65 years	1,097,249	41.1%
Pre-school children aged above six months with at least one dose	338,418	30.2%
Elementary school students	933,735	72.0%
People with catastrophic illness	42,437	
Staff in nursing homes and other long-term care facilities	29,301	96.2%
Healthcare workers	273,851	94.5%
Public health personnel		
Infection control workers	12,873	100%
Emergency medical technicians	5,039	69.4%
Airborne service corps	184	100%
Coast guards	4,044	76.3%
Border control workers	759	13.5%
Animal farm-related workers	14,866	81.7%
Adults 60 years of age and older who have medical conditions	34,448	

# Table 28 Government-funded influenza vaccination coverage rates by high-risk groups,2013-2014

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

The overall average coverage rate was 51.1%. The coverage rates were highest in Northern Taiwan for 56.6%, followed by 55.6% and 55.5% in Central Taiwan and Eastern Taiwan, respectively. The coverage rate in Taoyuan City (the original Taoyuan City) was 61.5%, 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 Chiayi City, Changhua County, Yilan County, Hualien County, Chiayi County, Nantou County, Taichung City, Taitung County, Keelung City, Hsinchu City, and Tainan City. In addition, the coverage rates in Miaoli County, Hsinchu County, Pingtung County and Yunlin County were higher than 50%. The cities and counties with coverage rates higher than 40% include New Taipei City, Kaohsiung City, Penhu County and Taipei City. The coverage rate in Kinmen County was 31.8%.



vaccine shots

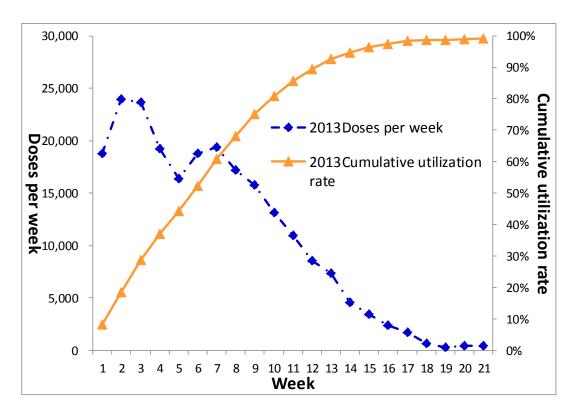


Figure 71 Immunization progress with 0.25ml influenza vaccine shots

Locality	Target population	Vaccinated population	Coverage rate
Taipei City	674,385	280,498	41.6%
Kaohsiung City	618,119	291,930	47.2%
Keelung City	82,767	42,952	51.9%
Hsinchu City	106,405	54,681	51.4%
Taichung City	591,974	321,269	54.3%
Tainan City	434,723	223,360	51.4%
Chiayi City	67,128	40,146	59.8%
New Taipei City	800,192	385,512	48.2%
Taoyuan City	449,401	276,313	61.5%
Hsinchu County	132,880	67,304	50.7%
Yilan County	114,356	65,781	57.5%
Miaoli County	142,880	72,642	50.8%
Changhua County	324,133	187,812	57.9%
Nantou County	129,859	72,215	55.6%
Yunlin County	189,833	94,980	50.0%
Chiayi County	139,486	79,434	56.9%
Pingtung County	204,332	103,118	50.5%
Penghu County	25,649	10,729	41.8%
Hualien County	84,423	48,365	57.3%
Taitung County	57,873	30,675	53.0%
Kinmen County	24,810	7,885	31.8%
Lienchiang County	2,887	1,647	57.0%
Total	5,398,495	2,759,248	51.1%

Table 29 Government-funded influenza vaccination coverage rates by cities/counties,2013-2014

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 2<sup>nd</sup> dose for children under 6 years old were not calculated.

4. Patients with catastrophic illness and people with medical conditions were not calculated because the target population could not be estimated by cities/counties.

# Syphilis

In 2014, 6,986 confirmed cases of syphilis (incidence rate: 29.85 per 100,000 population) were reported, which increased as compared with 6,346 confirmed cases (incidence rate: 27.18 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 5,379 male cases (77.0%) and 1,607 female cases (23.0%) with male to female ratio of 3.3:1.0.

(2) By age group (based on age at diagnosis)

The cases occurred mostly in 25-39 years age groups with 2,395 cases (34.3%) reported, followed by 40-64 years age group with 2,027 cases (29.0%), 65 years and over age group with 1,671 cases (23.9%), 15-24 years age group with 867 cases (12.4%), 0-1 year age group with 25 cases (0.4%), and 5-14 years age group with 1 case (<0.1%).

(3) By month (based on diagnosis date)

There were no specific prevalent months or seasons for syphilis in 2014 and there were confirmed cases reported in each month of the year.

(4) By residential region

All cities and counties had confirmed cases of syphilis reported in 2014, except for Lienchiang County. New Taipei City had the highest number of incidents with 1,480 cases (21.2%) reported, followed by Kaohsiung City with 933 cases (13.4%), Taipei City with 890 cases (12.7%), Taoyuan City with 811 cases (11.6%), Taichung City with 801 cases (11.5%), Tainan City with 425 cases (6.1%), Changhua County with 250 cases (3.6%), Pingtung County with 235 cases (3.4%), Yilan County with 188 cases (2.7%), Yunlin County with 141 cases (2.0%), Keelung City with 125 cases (1.5%). The rest of cities and counties all had less than 100 confirmed cases reported.

The incidence rate of confirmed cases per 100,000 population was the highest in Yilan County (40.99), followed by Taoyuan City (39.54), New Taipei City (37.37), Penghu County (35.62), Hualien County (34.17), Kaohsiung City (33.57), Keelung City (33.42) and Taipei City (33.03). The incidence rates of confirmed cases per 100,000 population of the other cities and counties were below 30.00.

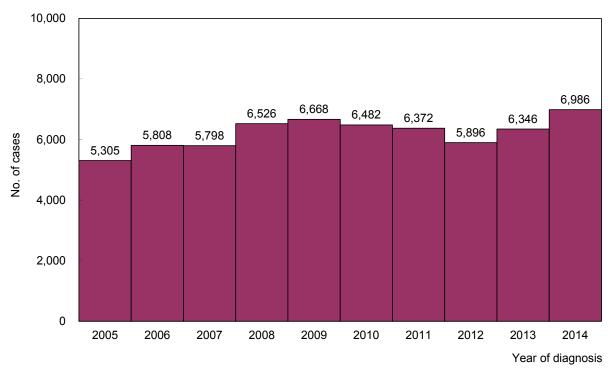


Figure 72 Number of confirmed Syphilis cases, 2005-2014

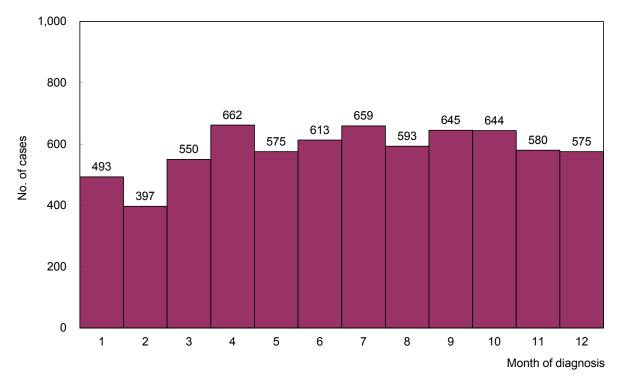


Figure 73 Number of confirmed Syphilis cases, 2014

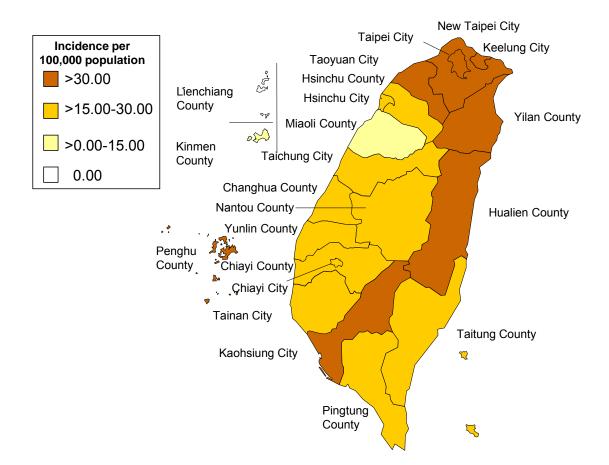


Figure 74 Geographical distribution by incidence of confirmed Syphilis cases, 2014

## Gonorrhea

In 2014, 2,622 confirmed cases of gonorrhea (incidence rate: 11.20 per 100,000 population) were reported, which increased as compared with 2,155 confirmed cases (incidence rate: 9.23 per 100,000 population) in 2013. The data of confirmed cases in 2014 are analyzed as follows:

(1) By gender

There were 2,458 male cases (93.7%) and 164 female cases (6.3%) with male to female ratio of 15.0:1.0.

(2) By age group (based on age at diagnosis)

The cases occurred mostly in 25-39 years age groups with 1,402 cases (53.5%) reported, followed by 15-24 years age group with 897 cases (34.2%), 40-64 years age group with 303 cases (11.6%), 65 years and over age group with 13 cases (0.5%), and 5-14 years age group with 7 cases (0.3%).

(3) By month (based on diagnosis date)

There were no specific prevalent months or seasons for gonorrhea in 2014, 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 641 cases (24.4%) reported, followed by Taipei City with 614 cases (23.4%), Taoyuan City with 308 cases (11.7%), Kaohsiung City with 240 cases (9.2%), Taichung City with 181 cases (6.9%), Tainan City with 133 cases (5.1%), Hsinchu County and Changhua County with 62 cases each (2.4% respectively), Keelung City with 61 cases (2.3%), Miaoli County with 59 cases (2.3%), Pingtung County with 41 cases (1.6%), Hualien County with 39 cases (1.5%), Yunlin County with 38 cases (1.4%), Hsinchu City and Nantou County with 32 cases each (1.2% respectively) and Chiayi County with 30 cases (1.1%). The other cities and counties had less than 30 confirmed cases reported, in which 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 (22.79), followed by Keelung City (16.31), New Taipei City (16.18), Taoyuan City (15.02), Hualien County (11.69), Hsinchu County (11.61), and Miaoli County (10.42). The incidence rates of confirmed cases per 100,000 population of the other cities and counties were below 10.00.

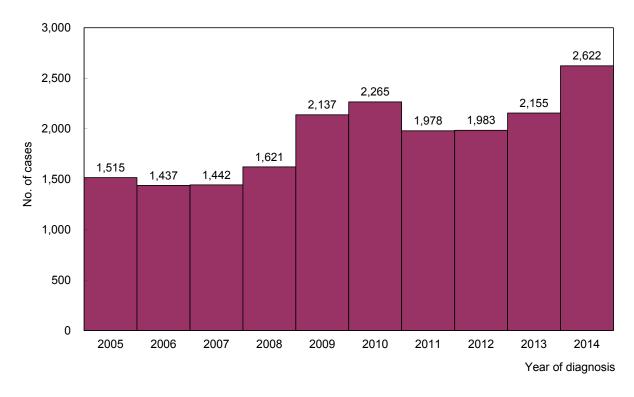


Figure 75 Number of confirmed Gonorrhea cases, 2005-2014

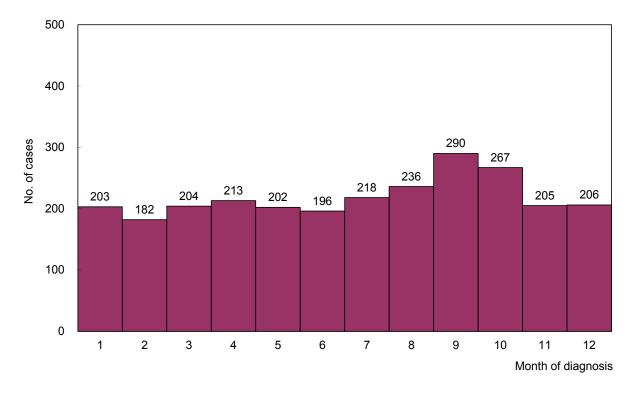


Figure 76 Number of confirmed Gonorrhea cases, 2014

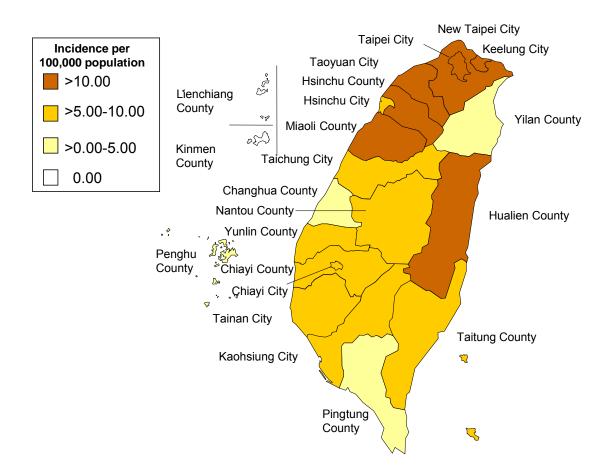


Figure 77 Geographical distribution by incidence of confirmed Gonorrhea cases, 2014

# **HIV Infection & AIDS**

From 1984 up to the end of 2014, there were 29,664 cases of human immunodeficiency virus (HIV) infection (28,710 native cases and 954 foreign cases) and 12,690 acquired immunodeficiency syndrome (AIDS) cases (12,564 native cases and 126 foreign cases) were reported.

In 2014, 2,300 HIV cases (2,236 native cases and 64 foreign cases) and 1,399 AIDS cases (1,387 native cases and 12 foreign cases) were diagnosed and reported. The data of native cases in 2014 are analyzed as follows (the HIV infection cases include AIDS cases):

- (1) By gender
  - HIV: There were 2,176 male cases (97.3%) and 60 female cases (2.7%) with male to female ratio of 36.3 : 1.0.
  - AIDS: There were 1,323 male cases (95.4%) and 64 female cases (4.6%) with male to female ratio of 20.7 : 1.0.

(2) By age group

- HIV: There were 1,213 cases (54.2%) in 25-39 years age group, 658 cases (29.4%) in 15-24 years age group, and 341 cases (15.3%) in 40-64 years age group.
- AIDS: There were 807 cases (58.2%) in 25-39 years age group, 398 cases (28.7%) in 40-64 years age group, and 161 cases (11.6%) 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 2014 and there were confirmed cases reported in each month of the year.

- (4) By risk factors
  - HIV (total): There were 1,878 cases (84.0%) caused by men who have sex with men acts, 248 cases (11.1%) caused by heterosexual acts, 56 cases (2.5%) caused by injection drug use, 3 case (0.1%) caused by vertical transmission, and 51 cases (2.3%) with unknown causes.
  - HIV (male): There were 1,878 cases (86.3%) caused by men who have sex with men acts, 202 cases (9.3%) caused by heterosexual acts, 46 cases (2.1%) caused by injection drug use, 1 case (0.0%) caused by vertical transmission, and 49 cases (2.3%) with unknown causes.
  - HIV (female): The cases were mostly caused by heterosexual acts with 46 cases (76.7%), followed by injection drug use with 10 cases (16.7%) and vertical transmission with 2 case (3.3%). There were also 2 female cases (3.3%) with unknown causes.
  - AIDS (total): There were 948 cases (68.3%) involving men who have sex with men acts, 234 cases (16.9%) involving drug users, 186 cases (13.4%) involving heterosexuals, 1 case (0.1%) involving vertical transmission patient. There were also 18 cases (1.3%) with unknown causes.
  - AIDS (male): There were 948 cases (71.7%) involving homosexuals, 205 cases (15.5%) involving drug users, 152 cases (11.5%) involving heterosexuals, and 18 cases (1.4%) with unknown causes.

AIDS (female): There were 34 cases (53.1%) involving heterosexuals, 29 cases (45.3%) involving drug users, 1 case (1.6%) involving vertical transmission patient.
 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 568 cases (25.4%) reported, followed by Taipei City with 379 cases (16.9%), Kaohsiung City with 299 cases (13.4%), Taichung City with 272 cases (12.2%), and Taoyuan City with 191 cases (8.5%). Penghu County and Lienchiang County did not have HIV infection cases reported in 2014.

The incidence rate of confirmed HIV cases per 100,000 population was the highest in New Taipei City (14.34), followed by Taipei City (14.07), and Kaohsiung City (10.76).

AIDS: New Taipei City had the highest number of incidents with 315 cases (22.7%) reported, followed by Taipei City with 199 cases (14.3%), Kaohsiung City with 197 cases (14.2%), Taichung City with 169 cases (12.2%), and Taoyuan City with 127 cases (9.2%). Penghu County, Kinmen County and Lienchiang County did not have AIDS cases reported in 2014.

The incidence rate of confirmed AIDS cases per 100,000 population was the highest in New Taipei City (7.95), followed by Taipei City (7.39) and Hsinchu City (7.21).

Risk factor	HIV	%	AIDS	%
Men who have sex with men	1,878	86.3%	948	71.7%
Heterosexuals	202	9.3%	152	11.5%
Injecting drug users	46	2.1%	205	15.5%
Blood recipients	0	0.0%	0	0.0%
Vertical transmission	1	0.0%	0	0.0%
Hemophiliacs	0	0.0%	0	0.0%
Unknown	49	2.3%	18	1.4%
Total	2,176	100.0%	1,323	100.0%

Table 30 Risk factors for male HIV and AIDS cases (foreigner excluded), 2014

#### Table 31 Risk factors for female HIV and AIDS cases (foreigner excluded), 2014

Risk factor	HIV	%	AIDS	%
Heterosexuals	46	76.7%	34	53.1%
Injecting drug users	10	16.7%	29	45.3%
Blood recipients	0	0.0%	0	0.0%
Vertical transmission	2	3.3%	1	1.6%
Hemophiliacs	0	0.0%	0	0.0%
Unknown	2	3.3%	0	0.0%
Total	60	100.0%	64	100.0%

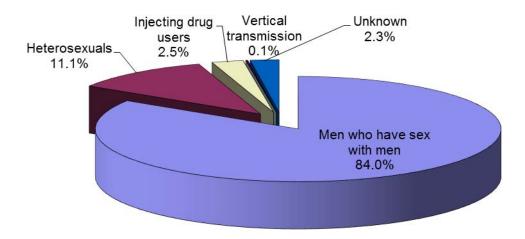


Figure 78 Risk factor of confirmed HIV infection cases (foreigner excluded), 2014

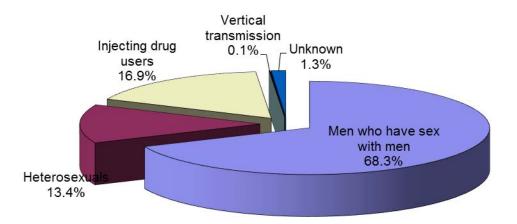


Figure 79 Risk factor of confirmed AIDS cases (foreigner excluded), 2014

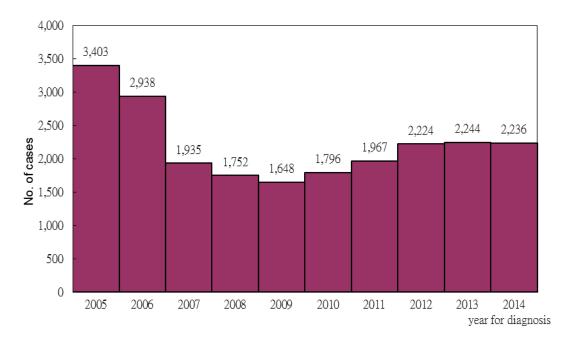


Figure 80 Number of confirmed HIV infection cases (foreigner excluded), 2005-2014

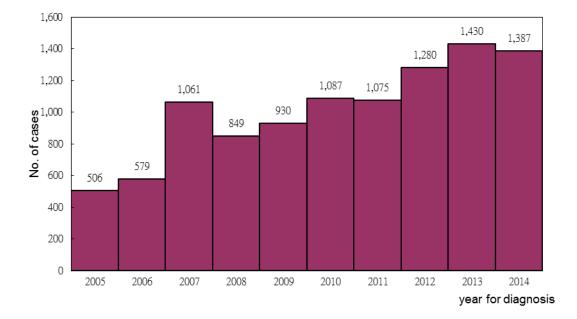


Figure 81 Number of confirmed AIDS cases (foreigner excluded), 2005-2014

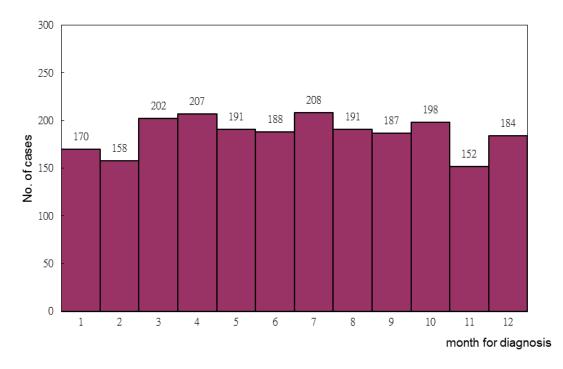


Figure 82 Number of confirmed HIV infection cases (foreigner excluded), 2014

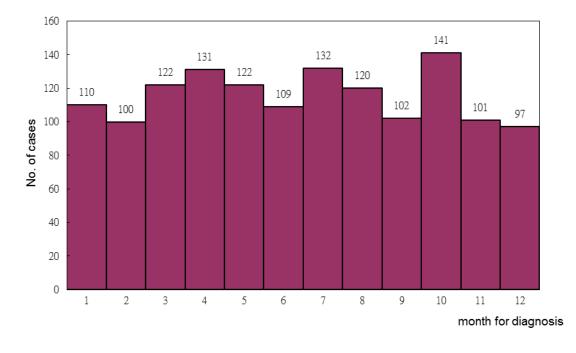


Figure 83 Number of confirmed AIDS cases (foreigner excluded), 2014

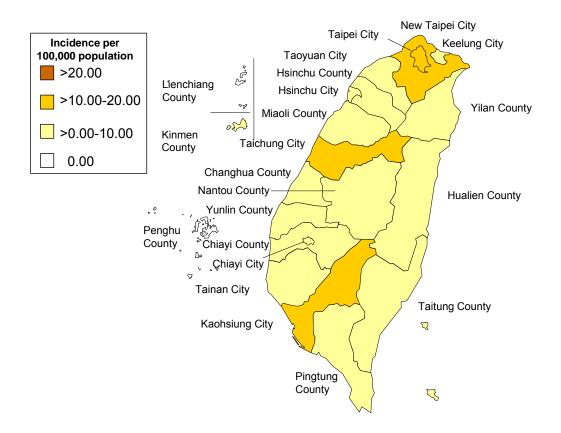


Figure 84 Geographical distribution by incidence of confirmed HIV infection cases (foreigner excluded), 2014

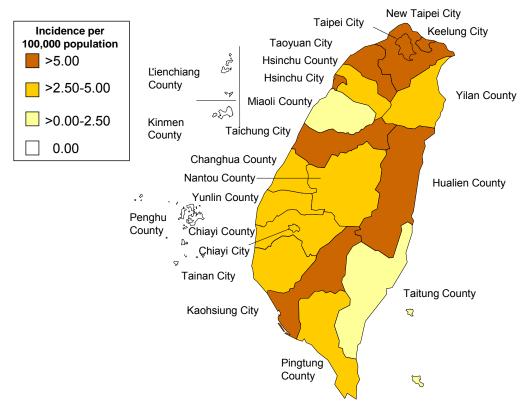


Figure 85 Geographical distribution by incidence of confirmed AIDS cases (foreigner excluded), 2014

# **Tuberculosis**

In 2014, 11,326 cases of tuberculosis (incidence rate: 48.4 per 100,000 population) were confirmed, which went down in both case number and incidence rate with 1.8% and 2% declining respectively, as compared with 11,528 confirmed cases (incidence rate: 49.4 per 100,000 population) in 2013. The data of confirmed TB cases in 2014 were analyzed as follows:

(1) By gender

There were 7,894 male cases (69.7%) and 3,432 female cases (30.3%) with a male to female ratio of 2.3:1.0. The incidence rate of tuberculosis in males (67.5 per 100,000 population) was 2.3 times higher than that in females (29.3 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 2014, 52 were aged 0-14, 487 were aged 15-24, 635 were aged 25-34, 832 were aged 35-44, 1,383 were aged 45-54, 1,883 were aged 55-64, and 6,054 were elderly over 65 year-old which accounted for 53.5% of total.

(3) By month (based on notification date)

Tuberculosis cases were reported in each month of the year, with the highest notification (1,081 cases) in May and lowest (823 cases) in November.

(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, Taitung County had the highest incidence rate with 79.2 per 100,000 population, followed by Hualien County with 79.1 per 100,000 population. Kinmen County and Lienchiang County had the lowest incidence rate with 16.1 and 16.2 per 100,000 population respectively.

(5) Mortality distribution

In 2014, there were 591 tuberculosis deaths with a mortality rate of 2.5 per 100,000 population. Males accounted for 431 deaths (3.7 deaths per 100,000 population) and the rest of 160 were females (1.4 deaths per 100,000 population) with a male to female death ratio of 2.7:1.0.

The tuberculosis mortality rate in Taiwan increased with age. Of the 591 tuberculosis deaths in 2014, 84.3% (498 cases) were elderly aged 65 years and above.

For the overall geographic distribution, tuberculosis deaths in 2014 showed a pattern of higher in eastern and southern regions and lower in northern region. Lienchiang County had the highest TB mortality rate (8.1 per 100,000 population), followed by Pingtung County (5.1 per 100,000 population) and Hualien County (5.1 per 100,000 population).

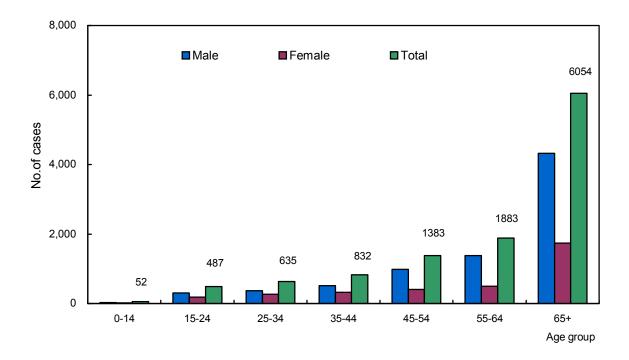


Figure 86 Tuberculosis cases number by age group and sex, 2014

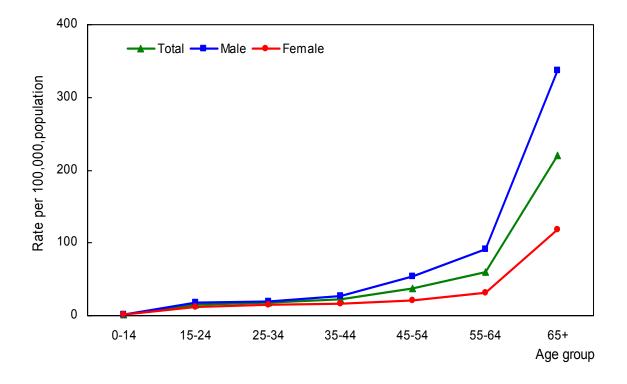


Figure 87 Incidence rate of Tuberculosis by age group and sex, 2014

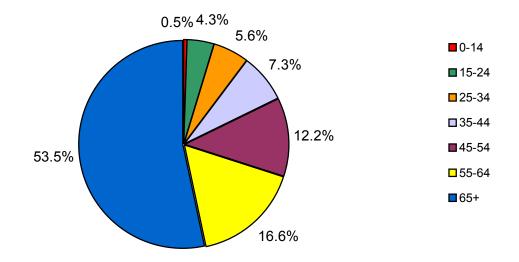


Figure 88 Distribution of Tuberculosis incidence by age group, 2014

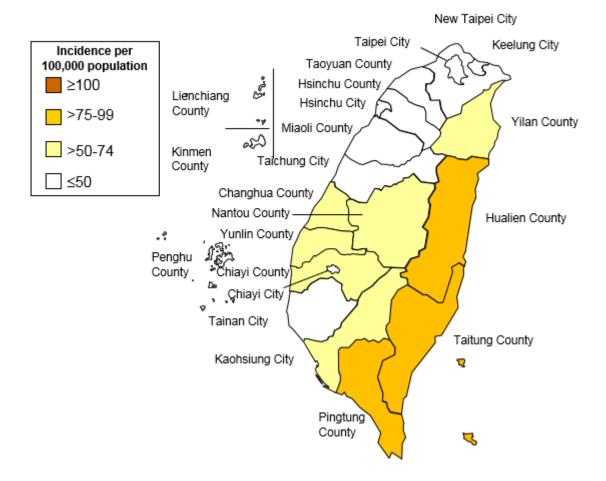


Figure 89 Geographical distribution by incidence of Tuberculosis cases, 2014

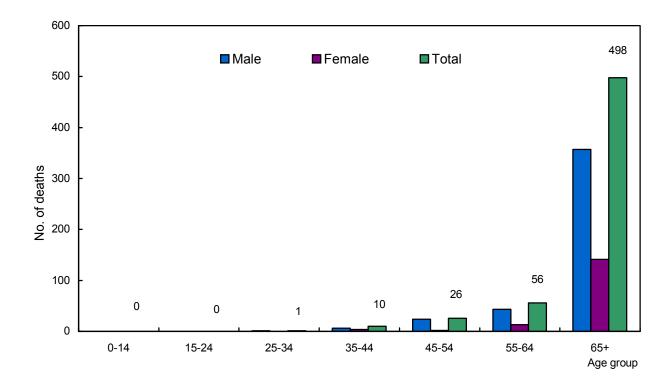


Figure 90 Mortality number of Tuberculosis by age group and sex, 2014

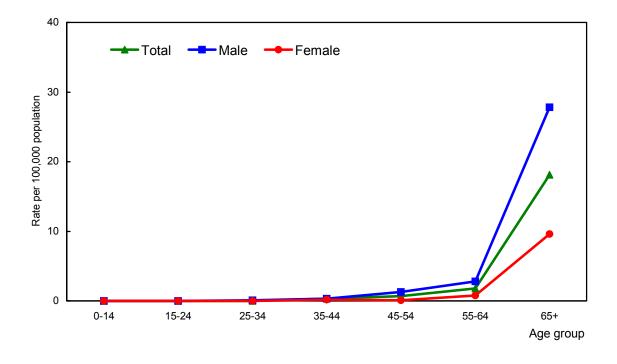


Figure 91 Mortality rate of Tuberculosis by age group and sex, 2014

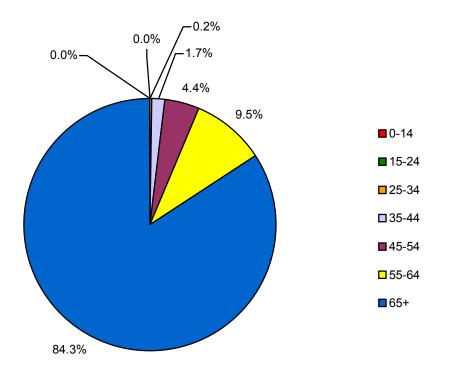


Figure 92 Distribution of Tuberculosis mortality by age group, 2014

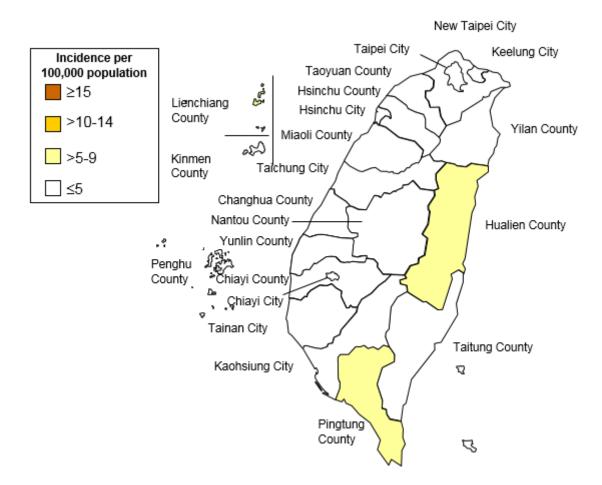


Figure 93 Geographical distribution by mortality of confirmed Tuberculosis cases, 2014

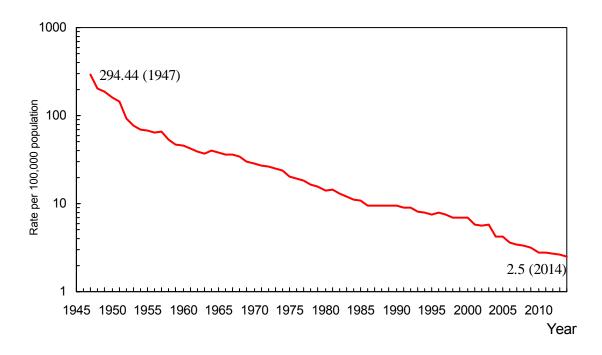


Figure 94 Trend of Tuberculosis mortality rate by year

Locality	Midyear population	Death number from TB	Per 100,000 population
Taiwan	23,403,635	591	2.5
New Taipei City	3,960,874	73	1.8
Yilan County	458,617	12	2.6
Taoyuan City	2,051,176	42	2.0
Hsinchu County	534,058	4	0.7
Miaoli County	566,343	5	0.9
Changhua County	1,293,744	47	3.6
Nantou County	515,769	23	4.5
Yunlin County	706,574	33	4.7
Chiayi County	527,006	14	2.7
Pingtung County	850,102	43	5.1
Taitung County	224,646	7	3.1
Hualien County	333,645	17	5.1
Penghu County	101,079	1	1.0
Keelung City	373,996	5	1.3
Hsinchu City	430,236	11	2.6
Taichung City	2,710,748	53	2.0
Chiayi City	270,878	5	1.8
Tainan City	1,883,746	55	2.9
Taipei City	2,694,416	54	2.0
Kaohsiung City	2,779,435	85	3.1
Kinmen County	124,218	1	0.8
Lienchiang County	12,336	1	8.1

#### Table 32 Mortality of Tuberculosis — by geographical distribution, 2014

		Tuberculosis			Male			Female	
Age	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	23,403,635	591	2.5	11,691,323	431	3.7	11,712,313	160	1.4
0-4	996,039	-	-	516,547	-	-	479,492	-	
5-9	1,028,393	-	-	537,210	-	-	491,183	-	
10-14	1,287,520	-	-	672,677	-	-	614,843	-	
15-19	1,537,377	-	-	799,230	-	-	738,147	-	
20-24	1,607,713	-	-	836,564	-	-	771,149	-	
25-29	1,621,864	1	0.1	829,347	1	0.1	792,518	-	
30-34	1,989,841	-	-	991,665	-	-	998,176	-	
35-39	1,954,155	3	0.2	967,380	3	0.3	986,775	-	-
40-44	1,805,165	7	0.4	893,407	3	0.3	911,758	4	0.4
45-49	1,850,709	12	0.6	921,518	12	1.3	929,192	-	-
50-54	1,867,958	14	0.7	925,926	12	1.3	942,033	2	0.2
55-59	1,694,696	18	1.1	831,345	14	1.7	863,352	4	0.5
60-64	1,410,661	38	2.7	684,295	29	4.2	726,366	9	1.2
65+	2,751,548	498	18.1	1,284,216	357	27.8	1,467,332	141	9.6

### Table 33 Mortality of Tuberculosis — by age & sex, 2014

		Total			Male			Female	
Locality	Tuberculosis	Midyear population	Per 100,000 population	Tuberculosis	Midyear population	Per 100,000 population	Tuberculosis	Midyear population	Per 100,000 population
Taiwan	11,326	23,403,635	48.4	7,894	11,691,323	67.5	3,432	11,712,313	29.3
New Taipei City	1,798	3,960,874	45.4	1,220	1,950,900	62.5	578	2,009,974	28.8
Yilan County	256	458,617	55.8	187	232,907	80.3	69	225,710	30.6
Taoyuan City	839	2,051,176	40.9	607	1,029,641	59.0	232	1,021,535	22.7
Hsinchu County	190	534,058	35.6	129	273,574	47.2	61	260,484	23.4
Miaoli County	185	566,343	32.7	147	292,131	50.3	38	274,213	13.9
Changhua County	709	1,293,744	54.8	468	662,121	70.7	241	631,623	38.2
Nantou County	349	515,769	67.7	236	264,687	89.2	113	251,082	45.0
Yunlin County	493	706,574	69.8	344	367,676	93.6	149	338,898	44.0
Chiayi County	275	527,006	52.2	206	274,505	75.0	69	252,501	27.3
Pingtung County	662	850,102	77.9	451	435,837	103.5	211	414,265	50.9
Taitung County	178	224,646	79.2	136	116,640	116.6	42	108,006	38.9
Hualien County	264	333,645	79.1	189	170,670	110.7	75	162,975	46.0
Penghu County	16	101,079	15.8	12	52,052	23.1	4	49,028	8.2
Keelung City	176	373,996	47.1	132	188,127	70.2	44	185,869	23.7
Hsinchu City	138	430,236	32.1	96	213,010	45.1	42	217,226	19.3
Taichung City	1,100	2,710,748	40.6	782	1,343,372	58.2	318	1,367,377	23.3
Chiayi City	127	270,878	46.9	86	132,530	64.9	41	138,348	29.6
Tainan City	893	1,883,746	47.4	642	944,312	68.0	251	939,434	26.7
Taipei City	905	2,694,416	33.6	593	1,292,791	45.9	312	1,401,625	22.3
Kaohsiung City	1,751	2,779,435	63.0	1,214	1,384,447	87.7	537	1,394,988	38.5
Kinmen County	20	124,218	16.1	15	62,361	24.1	5	61,858	8.1
Lienchiang County	2	12,336	16.2	2	7,038	28.4	-	5,298	0.0

#### Table 34 Confirmed tuberculosis cases — by geographical distribution, 2014

		Total			Male			Female	
Age	tuberculosis	Midyear population	Per 100,000 population	tuberculosis	Midyear population	Per 100,000 population	tuberculosis	Midyear population	Per 100,000 population
Total	11,326	23,403,635	48.4	7,894	11,691,323	67.5	3,432	11,712,313	29.3
0-4	13	996,039	1.3	8	516,547	1.5	5	479,492	1.0
5-9	11	1,028,393	1.1	7	537,210	1.3	4	491,183	0.8
10-14	28	1,287,520	2.2	16	672,677	2.4	12	614,843	2.0
15-19	240	1,537,377	15.6	144	799,230	18.0	96	738,147	13.0
20-24	247	1,607,713	15.4	156	836,564	18.6	91	771,149	11.8
25-29	259	1,621,864	16.0	148	829,347	17.8	111	792,518	14.0
30-34	376	1,989,841	18.9	219	991,665	22.1	157	998,176	15.7
35-39	394	1,954,155	20.2	226	967,380	23.4	168	986,775	17.0
40-44	438	1,805,165	24.3	286	893,407	32.0	152	911,758	16.7
45-49	591	1,850,709	31.9	410	921,518	44.5	181	929,192	19.5
50-54	792	1,867,958	42.4	572	925,926	61.8	220	942,033	23.4
55-59	898	1,694,696	53.0	660	831,345	79.4	238	863,352	27.6
60-64	985	1,410,661	69.8	722	684,295	105.5	263	726,366	36.2
65+	6,054	2,751,548	220.0	4,320	1,284,216	336.4	1,734	1,467,332	118.2

#### Table 35Confirmed tuberculosis cases — by age & sex, 2014

Locality	Township	Tuberculosis	Midyear population	Per 100,000 population
Total		330	200,680	164.4
New Taipei City	Wulai District	10	6,101	163.9
Taoyuan City	Fusing District	16	10,769	148.6
Hsinchu County	Jianshih Township	13	9,337	139.2
Hsinchu County	Wufong Township	4	4,634	86.3
Yilan County	Datong Township	17	6,066	280.3
Yilan County	Nanao Township	14	6,030	232.2
Miaoli County	Taian Township	5	6,063	82.5
Taichung City	Heping District	14	10,707	130.8
Nantou County	Renai Township	44	15,795	278.6
Nantou County	Sinyi Township	27	16,770	161.0
Chiayi County	Alishan Township	0	5,748	0.0
Kaohsiung City	Maolin District	5	1,874	266.9
Kaohsiung City	Taoyuan District	10	4,351	229.8
Kaohsiung City	Namasia District	3	3,175	94.5
Pingtung County	Sandimen Township	16	7,675	208.5
Pingtung County	Shihzih Township	1	4,829	20.7
Pingtung County	Majia Township	8	6,658	120.2
Pingtung County	Laiyi Township	9	7,629	118.0
Pingtung County	Chunrih Township	4	4,845	82.6
Pingtung County	Taiwu Township	5	5,210	96.0
Pingtung County	Mudan Township	8	4,821	166.0
Pingtung County	Wutai Township	4	3,317	120.6
Hualien County	Sioulin Township	50	15,381	325.1
Hualien County	Wanrong Township	8	6,513	122.8
Hualien County	Jhuosi Township	11	6,166	178.4
Taitung County	Yanping Township	14	3,583	390.7
Taitung County	Haiduan Township	5	4,371	114.4
Taitung County	Jinfong Township	4	3,586	111.6
Taitung County	Daren Township	0	3,742	0.0
Taitung County	Lanyu Township	1	4,941	20.2

#### Table 36 Confirmed tuberculosis cases—by aboriginal locality / township, 2014

# PART IV

Appendix

Abbreviations and Symbols Used in Table

No reported cases.

... Not under surveillance.

#### Appendix 1

## Regulations for notifiable disease

Category	Diseases	Reported Within	Mandatory Isolation	Legal Basis*
I	Smallpox, Plague, Severe Acute Respiratory Syndrome, Rabies	24 hours	Isolation care at designated isolation care institution	1 · 2 · 6 · 11 · 16
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
	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 <i>Haemophilus Influenzae</i> 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
	Herpesvirus B Infection, Leptospirosis, Melioidosis, Botulism	24 hours	When necessary,	
I F I F I F I F I F I F I F I V I C C C C C C C C C C C C C C C C C C C	Invasive Pneumococcal Disease, Q Fever, Endemic Typhus Fever, Lyme Disease, Tularemia, Scrub Typhus, Complicated varicella, Toxoplasmosis, Severe Complicated Influenza, Brucellosis	one week	patients may be placed in designated isolation care institutions for isolation care.	1、2、6、7、 8、9、14、 15、17
	Creutzfeldt-Jakob Disease	one month		
	Rift Valley Fever, Marburg Haemorrhagic Fever, Yellow Fever, Ebola Virus Disease, Lassa Fever		Isolation care at designated isolation care institution	.1 、 2 、 10 、
V	Middle East Respiratory Syndrome Coronavirus Infections, Novel Influenza A Virus infections	24 hours	When necessary, patients may be placed in designated isolation care institutions for isolation care.	12 \ 13 \ 12 \ 13 \ 14 \ 16 \ 18

\*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."
- 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.
- 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.
- 15. According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-1020103975 dated December 27, 2013 of the Department of Health, "Varicella" is changed name to "Complicated varicella" in the list of Class IV Notifiable Communicable Disease.
- 16. According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-10301009927 dated June 27, 2014 of the Department of Health, "Novel Influenza A Virus infections" is included in the list of Class V Notifiable Communicable Diseases. "H5N1 Influenza" in the list of Class I Notifiable Communicable Disease and "H7N9 Influenza" in the list of Class V are removed.
- 17. According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-1030101132 dated Augest 1, 2014 of the Department of Health, "Complicated Influenza" is changed name to "Severe Complicated Influenza" in the list of Class IV Notifiable Communicable Disease.
- 18. According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-1030101208 dated Augest 8, 2014 of the Department of Health, "Ebola Haemorrhagic Fever" is changed name to "Ebola Virus Disease" in the list of Class V Notifiable Communicable Disease.

# Appendix 2 Report of cases of communicable and emerging infectious disease, include suspected

los- oital	Hosp	oital/Clinic						Coc No									Те	I				
	-	nosed by iysician						ess of al/Clin														
-	Name		Sex	Male	٢	Date of		(Y)	(M)	(D)			1		I.D.	Num	ber /	/ Pas	sport N	lumbe	er	
Гhе	Name			Fema	ale E	Birth			(101)	(0)												
The Datient	Nationa	□ National Residence : Identity : □N □Alien Bride	☐Alien /lainland	Labor Chines	е	el	Т	Office Home Mobil											Marital Status	Mar ⊡W	/idowe	ed
-	Address	Unknown								Occ	cupat	ion							act (with		ivorce	
_	Madiaal								•					_	No		/es	2	- 44 )			
	Medical Record No.					Date o	of Oi	nset			(Y	) (I	M)	(D)				-	y(within	3 mo	ntns)	
dical Re	Major Symptoms	Symptoms				Date	e of	Diagno	osis		(Y	) (I	M)	(D)		∟ Fro To:	m:	(Y) (Y) (Y	(M)	(D) (D		
-	Hospital  Yes No Referred				``	te: ospital/	Clin	) ic			Speci Colle			_	′es Io	D	ate c			(Y)	,	(D)
4 Date						eceivec Bureau			(Y)	) (1	VI) (	(D)			Dat	e Re	eceiv	ed b	y CDC	(Y)	(M)	(D)
	Category Diseases		atego Pertus	-	III Co		<b>uni</b> Tetar		le [	Dis	ease	es		ate isea		y IV C s	omn	nuni	cable			
	Smallpox	Pla	ague			Japanese Encephalitis									Herpesvirus B Infection							
	Severe Ac	cute Respiratory	Syndror	ne											Leptospirosis Melioidosis							
	Rabies					Congenital Rubella Syndrome									☐Botulism							
					A	Acute Hepatitis(except Hepatitis A)								Invasive Pneumococcal Disease								
		/ II Commu	nicabl	e		□Туре В □Туре C □Туре D □Туре E								Q fever Murine Typhus								
	Diseases					Unsp											Lyme Disease Tularemia					
	Diphtheria	- 7	ohoid Fe	/er		]Mumps			gionel			_					Scrub Typhus					
		e Hemorrhagic	Eovor /	Donauo		]Invasiv					ienza	ie Ty	/pe I	o Infe	ction		Complicated varicella					
	-	Syndrome		Deligue		]Syphili ]Neona			ionorr	nea							Toxoplasmosis				70	
		coccal Meningit	is			Entero				n witl	ים <u>.</u> רם	/ero	Cor	nnlice	ation		Bruc			ai <del>c</del> u I	muell	20
	 Paratypho	e				IDS			20001			5.0	201			-	,					
	Poliomye	litis				□HIV i	nfec	tion									Crei	utzfe	eldt-Jak	ob do	sease	•
	Acute	Flaccid Paralys	sis																			
	Shigellos ☐Malaria		□Amoe □Meas			Specify						-	ctio	n:			ateo		y V Co s	omm	unic	able
	Acute He					Confirm	ıdıl0	n onit		estel	II BIO	ι·							ey Fever	-		
		Enterohaemorrha	igic <i>E. co</i> i	li) Infectio	'n	Confirm	natio	n Unit	of NA	л:		-					Mart	ourg	Haemo	rrhag	ic Fev	er
	Hantavirus			l	-												Yello					
		nagic Fever with F	-														Ebol Lass		rus Dise	ease		
	☐Hantavii ☐Cholera	rus Pulmonary	Rube			Hanse	n's [	Diseas	е								-		ast Res	pirato	ory Sv	ndrome
		Chiki	ungunya																s Infect		, -,	
	West Nile		Typh														Novel Influenza A Virus infections					
			,pn														Othe	ers _				
	Anthrax							16	8													

IV. Remarks	1. Tuberculosis : Acid fast stain:       Positive       Negative       Not tested       Tested but not detected , Date of Testing:         TB culture:       Positive       Negative       Not tested       Tested but not detected , Date of Testing:         PCR:       Positive       Negative       Not tested       Tested but not detected , Date of Testing:         Typical tuberculosis pathology report , Date of Testing:      (y/m/d) ,      (y/m/d) ,         Chest and other X-ray examination:      Normal_No cavity_With cavity , Date of Examination:      (y/m/d) ,         2. Testing result by reported hospital :								
For Health Agency									
Sigr	ned by Person-in-charge	Signed by Section Chief							

#### **Express**

# Reply Letter

 Floor \_\_\_\_ No \_\_ Alley \_\_ Lane \_\_\_ Section \_\_\_\_ Road / Street \_\_\_\_\_

 \_\_\_\_\_ Township / District \_\_\_\_\_ County / City

 To : \_\_\_\_\_ Health Bureau, Disease Control Section

 Floor \_\_\_ No \_\_ Alley \_\_ Lane \_\_\_ Section \_\_\_\_ Road / Street \_\_\_

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. Bu-Shou-Ji-Zi-1030101208 dated Augest 8, 2014 of the Department of Health, "Ebola Haemorrhagic Fever" is changed name to "Ebola Virus Disease" in the list of Class V Notifiable Communicable Disease
- (2) According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-1030101132 dated Augest 1, 2014 of the Department of Health, "Complicated Influenza" is changed name to "Severe Complicated Influenza" in the list of Class IV Notifiable Communicable Disease
- (3) According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-10301009927 dated June 27, 2014 of the Department of Health, "Novel Influenza A Virus infections" is included in the list of Class V Notifiable Communicable Diseases. "H5N1 Influenza" in the list of Class I Notifiable Communicable Disease and "H7N9 Influenza" in the list of Class V are removed
- (4)According to Department of Health's Bulletin No. Bu-Shou-Ji-Zi-1020103975 dated December 27, 2013 of the Department of Health, "Varicella" is changed name to "Complicated varicella" in the list of Class IV Notifiable Communicable Disease
- (5) 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.
- (6) 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.
- (7) 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.
- (8) 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.
- (9) 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.
- (10) 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.
- (11) 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."
- (12) 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.
- (13) 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.

- (14) 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.
- (15) 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).
- (16) 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.
- (17) HIV infection : Cases must be confirmed positive by the Western Blot assay or NAT. 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 or NAT; 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.
- (18) 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.)
- (19) Website : https://ida4.cdc.gov.tw/hospital

For further information, please contact : \_\_\_\_\_Health Bureau, Disease Control Section Hot Line :

171

# 2014 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	29	30	31	1	2	3	4								4								1
week 2	5	6	7	8	9	10	11	week 6	2	3	4	5	6	7	8	week 10	2	3	4	5	6	7	8
week 3	12	13	14	15	16	17	18	week 7	9	10	11	12	13	14	15	week 11	9	10	11	12	13	14	15
week 4	19	20	21	22	23	24	25	week 8	16	17	18	19	20	21	22	week 12	16	17	18	19	20	21	22
week 5	26	27	28	29	30	31	1	week 9	23	24	25	26	27	28	1	week 13	23	24	25	26	27	28	29
																	<del>30</del>	<del>31</del>					
								May					lung										
	April Sun Mon Tue Wed Thu Fri Sat						May Sun Mon Tue Wed Thu Fri Sat								June Sun Mon Tue Wed Thu Fri S					Sat			
week 14	30	31	1	2	3	4	5		Jun	WIGHT	Tuc	vvcu	1	<del>2</del>	3 3	week 23	1	2	3	4	5	6	7
week 15	6	7	8	9	10	11	12	week 19	4	5	6	7	8	9	10	week 24	8	9	10	. 11	12	13	, 14
week 16	13	. 14	15	16	17	18	19	week 20	. 11	12	13	. 14	15	16	17	week 25	15	16	17	18	19	20	21
week 17	20	21	22	23	24	25	26	week 21	18	19	20	21	22	23	24	week 26	22	23	24	25	26	27	28
week 18	27	28	29	30	1	2	3	week 22	25	26	27	28	29	30	31		<del>29</del>	30			_		
																							I
	July									A	ugust	t				September							
		Mon		Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon				Fri	Sat
week 27	29	30	1	2	3	4	5							1	2	week 36	31	1	2	3	4	5	6
week 28	6	7	8	9	10	11	12	week 32	3	4	5	6	7	8	9	week 37	7	8	9	10	11	12	13
week 29	13	14	15	16	17	18	19	week 33	10	11	12	13	14	15	16	week 38	14	15	16	17	18	19	20
week 30	20	21	22	23	24	25	26	week 34	17	18	19	20	21	22	23	week 39	21	22	23	24	25	26	27
week 31	27	28	29	30	31	1	2	week 35	24	25	26	27	28	29	30		<del>28</del>	<del>29</del>	<del>30</del>				
					<del>31</del>																		
	October									No	vemb	er				December							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat
week 40	28	29	30	1	2	3	4								4	week 49	30	1	2	3	4	5	6
week 41	5	6	7	8	9	10	11	week 45	2	3	4	5	6	7	8	week 50	7	8	9	10	11	12	13
week 42	12	13	14	15	16	17	18	week 46	9	10	11	12	13	14	15	week 51	14	15	16	17	18	19	20
week 43	19	20	21	22	23	24	25	week 47	16	17	18	19	20	21	22	week 52	21	22	23	24	25	26	27
week 44	26	27	28	29	30	31	1	week 48	23	24	25	26	27	28	29	week 53	28	29	30	31	1	2	3
									<del>30</del>														

#### 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 City 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					
Public 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					
Public Health Bureau, Pingtung County Government					
Public Health Bureau, Penghu County					
Hualien County Health Bureau					
Public Health Bureau, Taitung County					

## Data providers in Taiwan CDC

#### **Division of Acute Infectious Diseases:**

Shu-Kuan Lai, Yi-Hsin Pan, Chiu-Hsiang Lin

#### Division of HIV/AIDS and TB:

Hsiao-Ping Tung, Jheng-Cyun Huang

**Division of Preparedness and Emerging Infectious Diseases:** Yi-Chien Chih, Li-Ching Hsu, Shu-Er Yang, Ting-Yi Chen

**Division of Infection Control and Biosafety:** Li-Jung Chien, Chien-Hua Chu, Yu-Tsang Wang, Chia-Hsin Yang

#### **Epidemic Intelligence Center:**

Shiang-Lin Yang, Shiang-Yun Huang, Pei-Jung Chen, Wan-Jen Wu, Sung-Lin Chin, Hung-Wei Kuo, Ni-Chun Yeh, Yi-Fang Li, Chia-Lin Lee, Shu-Wan Jian, Yu-Ping Hu

#### Center for Research, Diagnostics and Vaccine Development:

Gwo-Chang Sheu, Li-Wen Kuo, Chia-Hsuan Chen, Hwa-Jen Teng, Yun-Hsuan Yang, He-Hsien Hsieh

#### **Division of Quarantine:**

Li-Jue Wu, Wei-Hsu Leng, Cheng-Fu Su, Yuan-Pei Chang, Sue-Hung Lin