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Statistics of Communicable Diseases and Surveillance Report 2009

Annual
December 2010

Centers for Disease Control,
Department of Health,
R.O.C.(Taiwan)

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Foreword

I am pleased to present to you the 2009 Statistics of Communicable Diseases and Surveillance Report by Taiwan Centers for Disease Control (Taiwan CDC).

Through everyone's participation and continuous efforts, all acute and chronic infectious diseases that have threatened life have been gradually brought under control. Based on our past experiences in disease control, our agency always strives to take a versatile, rapid, effective and global approach to the control of infectious diseases. Constructing a highly sensitive, prompt, effective and international disease surveillance system that provides the earliest warning possible has always been among Taiwan CDC's top priorities. It is because an efficient early warning system provides a good basis for disease control. On the other hand, communicable disease statistics and analysis is the most fundamental tool for disease surveillance, public health policy-making and implementation.

Since the 1970's, the Department of Health (DOH) began establishing specific communicable disease surveillance systems. In 1993, a more integrated system, the "Communicable Disease Case Reporting and Management System", was constructed the system was used to transmit and register cases of communicable diseases along with the case's biospecimen information. In July 1997, information technology was incorporated into disease surveillance. Case reporting systems were then included into the Health Information Network (HIN). In July 2001, the case reporting systems became web-based to facilitate electronic transmission of surveillance data, thus improving the timeliness and completeness of case reporting and investigation. In 1993, Taiwan CDC began publishing the "Annual Report of Communicable Disease Statistics in the Taiwan-Fukien Area". In 1995, Taiwan CDC published the "Annual Report of Communicable Disease Surveillance". In 1996, the two aforementioned publications were combined to produce the "Statistics of Communicable Diseases and Surveillance Report". This annual report is constantly amended in order to present more detailed statistical data for use and reference by the public.

To further achieve the purpose of active surveillance, Taiwan CDC has also

established the “Real-time Outbreak and Disease Surveillance System”, which utilizes a network of more than 170 medical institutions in Taiwan to transfer the diagnosis data of patients who visited the emergency department automatically and timely to Taiwan CDC. As a result, the trends of influenza-like illness, enterovirus, diarrhea and conjunctivitis can be analyzed as early as possible. In addition, we also work hand in hand with the Bureau of National Health Insurance (BNHI) and analyze the secondary data of patient visits uploaded from the BNHI to routinely monitor enterovirus activity and trend in influenza-like illness. We hope to gradually strengthen the capacity and effectiveness of diseases prevention in Taiwan through employing a wide variety of active surveillance systems.

In April 2009, the novel influenza A (H1N1) virus emerged and spread across the globe, resulting in a pandemic. Immediately after the World Health Organization published the case definition for human infection with the 2009 Pandemic influenza A (H1N1) virus, Taiwan CDC began closely monitoring domestic and international outbreaks of the virus and included it into the list of notifiable infectious diseases. Through integration of all resources by the Central Epidemic Command Center and employment of three strategies for disease control: containment, mitigation and vaccination, the epidemic was brought under control. The relevant data has also shown that the effectiveness of our control efforts is comparable to other advanced countries.

I hope this annual report can enhance public awareness and understanding of communicable disease surveillance and control. To further improve the publication, any comments and suggestions from readers and experts in all fields would be greatly appreciated.

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

Contents 2009

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. Sources of information “Report of cases of communicable and emerging infectious disease, include suspected cases”** are filled or submitted on-line by medical personnel and reported to local health agencies.

3.Definitions of terms used in the Report:

(1)Notifiable diseases: Communicable diseases listed in Article 3.

(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: Reported cases that are diagnosed or found positive by CDC laboratory testing or other verified institutions; “Pertussis” confirmation should fit with the clinical symptoms and determined epidemiologically associated with positive cases thus identified; Gonorrhea, Syphilis, HIV Infection and AIDS (Acquired Immunodeficiency Syndrome) cases should be confirmed by laboratory testing; moreover, AIDS should comply with the definition of disease; Acute Flaccid Paralysis cases should be verified by the Task Group on the Investigation of Acute Flaccid Paralysis of the CDC in Department of Health.

(4)SMYF Program (a.k.a the third 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 1990. The program was implemented from 1991 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 has been implemented since 2002 to 2006. The fourth phase of the program was approved in 2006 and has been implemented since 2007 to 2011. The goal of the program is to eradicate Measles by 2010 and keep Neonatal Tetanus, Congenital Rubella Syndrome and Poliomyelitis under effective control.

(5)Unspecified hepatitis: Cases that are non-A / non-B hepatitis and that can neither be classified as hepatitis C, D or E.

4.Analysis standards:

(1)By locality: The actual residential locality of the confirmed case.

(2)By age group: The actual age of the confirmed case.

(3)By month: The actual disease onset month of the confirmed case. The number of Syphilis, Gonorrhea, HIV Infection, AIDS and Hansen’s disease were estimated from the date of diagnostic. The number of TB was estimated by the date of notified.

(4)By year: The actual disease onset year of the confirmed case. The number of Syphilis, Gonorrhea, HIV infection, AIDS and Hansen's disease were estimated from the date of diagnostic. The number of TB was estimated by the date of notified.

(5)By week: Please refer to Appendix 4 for further details. Date is calculated according to the following regulations set by the Office of Statistics of the Department of Health:

i. January 1 will be the first day of the first week in a year. If the first week of a year do not amount to seven days, it will still be counted as a week.

ii. A week is Sunday through Saturday.

iii. There are about four to five weeks in a month.

iv. The last week of a month should amount to five days. If not, the days are counted as part of the next month.

※ For international comparison, the definition of week has been amended to follow WHO's definition since the last week of this year.

(6)In the 1999 annual statistics report, the tuberculosis statistics included only confirmed cases of open (active) and non-open (non-active) pulmonary tuberculosis, but not cases of pulmonary tuberculosis complicated with non-pulmonary tuberculosis. In compliance with the amendment made to the Communicable Diseases Control Act in 1999 and the intensified control of open pulmonary tuberculosis, CDC began to include and tabulate open pulmonary tuberculosis (including open pulmonary tuberculosis and open pulmonary tuberculosis with pulmonary and non-pulmonary complications) and other tuberculosis (all tuberculosis cases except the aforementioned open pulmonary tuberculosis) in the tuberculosis statistics. For international comparison, Tuberculosis has been categorized as smear positive and others in 2006.

(7)Starting from 2002, only Taiwanese HIV infection and AIDS cases are analyzed.

(8)From 2000 to 2005, Mumps and Varicella had been reported with secondary data; and had been reported with detailed information since January 1, 2006.

(9)Mid-Year Population: The mid-year population comes from the "2009 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 2. The analysis baseline in 2009 was based on the data before 2010/5/1.

(11) The statistics of MDR-TB (Multi-drug resistant tuberculosis) , 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 conducted with the proclamation of

"Categories of Communicable Diseases and Prophylaxis of Category IV and V" proclaimed on October 9, 2007, and were validated since October 15, 2007.

(12) Leprosy was renamed as Hansen's disease and HIV infection was re-categorized to the list of Category III Notifiable Communicable Diseases since November 1, 2008, which was promulgated under Sue-So-Ji No. 0970001187 on October 24, 2008.

(13) According to Shu-So-Ji- No. 0980000531 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. Later, another amendment of the "communicable disease classification" was made under Shu-So-Ji No. 0980000829 promulgated on June 19, 2009 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.

5.Symbols:"-" for no reported cases; "…" for not under surveillance.

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* Please see Appendix 2 for classification of communicable diseases.

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

I

Summary Tables and Graphs for Confirmed Cases —Republic of China (Taiwan), 2009

◎ Abbreviations and Symbols Used in Table

— No reported cases.

▪ ▪ ▪ Not under surveillance.

Table 1 Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Midyear population	Category I					
		Smallpox	Plague	SARS	Rabies	Anthrax	H5N1 Influenza
Total	23,078,402	-	-	-	-	-	-
Taipei Area							
Taipei City	2,615,176	-	-	-	-	-	-
Taipei County	3,853,692	-	-	-	-	-	-
Keelung City	388,650	-	-	-	-	-	-
Yilan County	461,263	-	-	-	-	-	-
Kinmen County	89,187	-	-	-	-	-	-
Lienchiang County	9,837	-	-	-	-	-	-
Northern Area							
Taoyuan County	1,968,734	-	-	-	-	-	-
Hsinchu City	408,479	-	-	-	-	-	-
Hsinchu County	507,077	-	-	-	-	-	-
Miaoli County	561,071	-	-	-	-	-	-
Central Area							
Taichung City	1,069,882	-	-	-	-	-	-
Taichung County	1,560,035	-	-	-	-	-	-
Changhua County	1,312,701	-	-	-	-	-	-
Nantou County	531,288	-	-	-	-	-	-
Southern Area							
Yunlin County	723,235	-	-	-	-	-	-
Chiayi City	273,827	-	-	-	-	-	-
Chiayi County	548,224	-	-	-	-	-	-
Tainan City	769,756	-	-	-	-	-	-
Tainan County	1,104,449	-	-	-	-	-	-
Kao-Ping Area							
Kaohsiung City	1,526,778	-	-	-	-	-	-
Kaohsiung County	1,243,192	-	-	-	-	-	-
Pingtung County	883,739	-	-	-	-	-	-
Penghu County	94,759	-	-	-	-	-	-
Eastern Area							
Hualien County	341,198	-	-	-	-	-	-
Taitung County	232,173	-	-	-	-	-	-
Others		-	-	-	-	-	-

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Category II							
	Diphtheria	Typhoid[1] Fever	Dengue[1] Fever	Dengue Hemorrhagic Fever / Dengue Shock Syndrome	Meningococcal Meningitis	Paratyphoid[1] Fever	Poliomyelitis	Acute[2] Flaccid Paralysis
Total	-	80	1,052	11	2	6	-	45
Taipei Area								
Taipei City	-	22	30	-	-	2	-	-
Taipei County	-	15	31	-	-	-	-	6
Keelung City	-	5	4	-	-	-	-	1
Yilan County	-	2	2	-	-	-	-	1
Kinmen County	-	-	2	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	-	9	35	-	2	1	-	5
Hsinchu City	-	-	2	-	-	-	-	1
Hsinchu County	-	3	7	-	-	-	-	1
Miaoli County	-	2	5	-	-	-	-	1
Central Area								
Taichung City	-	3	12	-	-	1	-	3
Taichung County	-	2	12	-	-	1	-	-
Changhua County	-	3	23	-	-	-	-	2
Nantou County	-	-	3	-	-	-	-	-
Southern Area								
Yunlin County	-	4	4	-	-	-	-	3
Chiayi City	-	1	-	-	-	-	-	-
Chiayi County	-	1	3	-	-	-	-	3
Tainan City	-	1	14	-	-	-	-	-
Tainan County	-	2	4	-	-	1	-	2
Kao-Ping Area								
Kaohsiung City	-	2	636	9	-	-	-	7
Kaohsiung County	-	1	137	1	-	-	-	4
Pingtung County	-	1	81	1	-	-	-	3
Penghu County	-	-	1	-	-	-	-	2
Eastern Area								
Hualien County	-	1	3	-	-	-	-	-
Taitung County	-	-	1	-	-	-	-	-
Others	-	-	-	-	-	-	-	-

Note: [1]The case amount of these diseases contained imported ones, including 64 Typhoid Fever, 204 Dengue Fever and four Paratyphoid Fever cases confirmed.

[2]Acute Flaccid Paralysis cases above 15 years old had been excluded since 2005.

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Midyear population	Category II						
		Shigellosis[1]	Amoebiasis[1]	Malaria[1]		Measles[1]	Acute Hepatitis A[1]	Enterohaemorrhagic *E. coli* Infection
				Indigenous	Imported			
Total	23,078,402	91	190	-	11	48	234	-
Taipei Area								
Taipei City	2,615,176	12	30	-	2	-	44	-
Taipei County	3,853,692	18	27	-	3	13	66	-
Keelung City	388,650	1	8	-	-	1	-	-
Yilan County	461,263	-	2	-	-	-	6	-
Kinmen County	89,187	-	-	-	-	-	5	-
Lienchiang County	9,837	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	1,968,734	2	12	-	-	4	24	-
Hsinchu City	408,479	5	3	-	-	-	5	-
Hsinchu County	507,077	2	1	-	-	-	3	-
Miaoli County	561,071	5	5	-	-	1	8	-
Central Area								
Taichung City	1,069,882	20	26	-	-	4	9	-
Taichung County	1,560,035	8	8	-	1	2	14	-
Changhua County	1,312,701	4	9	-	2	-	3	-
Nantou County	531,288	1	4	-	3	4	3	-
Southern Area								
Yunlin County	723,235	2	5	-	-	-	1	-
Chiayi City	273,827	-	2	-	-	-	-	-
Chiayi County	548,224	-	3	-	-	-	6	-
Tainan City	769,756	2	4	-	-	4	4	-
Tainan County	1,104,449	2	5	-	-	7	4	-
Kao-Ping Area								
Kaohsiung City	1,526,778	5	4	-	-	6	14	-
Kaohsiung County	1,243,192	2	5	-	-	1	7	-
Pingtung County	883,739	-	1	-	-	1	5	-
Penghu County	94,759	-	-	-	-	-	1	-
Eastern Area								
Hualien County	341,198	-	22	-	-	-	1	-
Taitung County	232,173	-	4	-	-	-	1	-
Others		-	-	-	-	-	-	-

Note : [1]The case amount of these diseases contained imported ones, including 52 Shigellosis, 68 Amoebiasis, 11 Malaria, nine Measles and 24 Acute Hepatitis A cases confirmed.

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Category II							
	Hantavirus Syndrome		Cholera	Rubella[1]	MDR-TB[3]	Chikungunya[1] Fever	West Nile Fever	Epidemic Typhus Fever
	Hemorrhagic Fever with Renal Syndrome	Hantavirus Pulmonary Syndrome						
Total	-	-	3	23	176	9	-	-
Taipei Area								
Taipei City	-	-	-	6	10	2	-	-
Taipei County	-	-	1	4	29	1	-	-
Keelung City	-	-	-	-	8	-	-	-
Yilan County	-	-	-	-	3	-	-	-
Kinmen County	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	-	-	-	4	6	1	-	-
Hsinchu City	-	-	-	-	4	-	-	-
Hsinchu County	-	-	-	1	2	-	-	-
Miaoli County	-	-	-	1	1	1	-	-
Central Area								
Taichung City	-	-	-	-	8	-	-	-
Taichung County	-	-	-	-	10	-	-	-
Changhua County	-	-	-	-	20	-	-	-
Nantou County	-	-	-	-	7	-	-	-
Southern Area								
Yunlin County	-	-	1	-	4	-	-	-
Chiayi City	-	-	-	-	1	-	-	-
Chiayi County	-	-	-	-	7	-	-	-
Tainan City	-	-	-	-	3	1	-	-
Tainan County	-	-	1	-	6	1	-	-
Kao-Ping Area								
Kaohsiung City	-	-	-	-	9	2	-	-
Kaohsiung County	-	-	-	5	13	-	-	-
Pingtung County	-	-	-	1	5	-	-	-
Penghu County	-	-	-	-	-	-	-	-
Eastern Area								
Hualien County	-	-	-	1	18	-	-	-
Taitung County	-	-	-	-	2	-	-	-
Others	-	-	-	-	-	-	-	-

Note : [1]The case amount of these diseases contained imported ones, including eight Rubella and nine Chikungunya Fever cases confirmed.

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

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Midyear population	Category III							
		Pertussis	Tetanus[5]	Japanese[1] Encephalitis	Tuberculosis[3]		Congenital Rubella Syndrome	Acute[1] Hepatitis B	Acute Hepatitis C
					Smear-positive	Others			
Total	23,078,402	90	12	18	5,210	8,126	-	152	131
Taipei Area									
Taipei City	2,615,176	13	-	-	413	697	-	23	17
Taipei County	3,853,692	21	1	2	817	1,287	-	42	24
Keelung City	388,650	2	-	-	96	115	-	3	3
Yilan County	461,263	4	1	1	98	182	-	3	3
Kinmen County	89,187	-	1	-	10	11	-	-	2
Lienchiang County	9,837	-	-	-	-	3	-	-	-
Northern Area									
Taoyuan County	1,968,734	9	-	-	338	583	-	16	10
Hsinchu City	408,479	-	-	-	49	100	-	-	2
Hsinchu County	507,077	1	-	1	86	151	-	2	5
Miaoli County	561,071	3	1	1	87	147	-	4	5
Central Area									
Taichung City	1,069,882	8	-	-	159	348	-	5	4
Taichung County	1,560,035	1	2	1	246	547	-	5	9
Changhua County	1,312,701	1	1	1	371	517	-	5	6
Nantou County	531,288	-	-	-	169	230	-	4	1
Southern Area									
Yunlin County	723,235	25	-	-	221	349	-	3	4
Chiayi City	273,827	-	-	-	51	83	-	-	2
Chiayi County	548,224	-	-	-	120	216	-	-	2
Tainan City	769,756	-	2	-	177	227	-	7	3
Tainan County	1,104,449	-	1	-	272	390	-	9	5
Kao-Ping Area									
Kaohsiung City	1,526,778	-	-	2	377	536	-	5	11
Kaohsiung County	1,243,192	-	-	-	434	573	-	6	6
Pingtung County	883,739	-	1	2	335	459	-	3	3
Penghu County	94,759	-	-	-	8	16	-	-	-
Eastern Area									
Hualien County	341,198	2	1	6	160	212	-	5	2
Taitung County	232,173	-	-	1	116	147	-	2	2
Others		-	-	-	-	-	-	-	-

Note : [1]The case amount of these diseases contained imported ones, including one Japanese Encephalitis and six Acute Hepatitis B cases confirmed.

[3]The caseload of Tuberculosis was estimated by the date of notification.

[5]Calculation for Tetanus based on reported cases only.

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Category III								
	Acute Hepatitis			Mumps[5]	Legionellosis[1]	Invasive Haemophilus Influenzae Type b infection	Syphilis[6]	Gonorrhea[6]	Neonatal Tetanus
	D	E[1]	Un-specified						
Total	1	9	18	1,068	84	14	6,668	2,137	-
Taipei Area									
Taipei City	-	1	2	193	17	-	914	487	-
Taipei County	-	2	2	198	17	-	1,436	624	-
Keelung City	1	-	-	28	-	1	132	36	-
Yilan County	-	-	-	31	-	-	220	14	-
Kinmen County	-	-	-	5	-	-	7	1	-
Lienchiang County	-	-	-	-	-	-	-	-	-
Northern Area									
Taoyuan County	-	-	-	93	6	-	647	249	-
Hsinchu City	-	1	-	8	1	-	107	40	-
Hsinchu County	-	-	-	24	2	1	91	63	-
Miaoli County	-	-	-	25	-	-	90	45	-
Central Area									
Taichung City	-	1	-	37	3	1	384	60	-
Taichung County	-	-	-	57	4	1	323	96	-
Changhua County	-	-	-	47	12	5	299	30	-
Nantou County	-	1	-	32	2	-	118	15	-
Southern Area									
Yunlin County	-	2	-	18	1	1	150	47	-
Chiayi City	-	-	1	1	-	-	50	15	-
Chiayi County	-	-	-	8	-	-	112	20	-
Tainan City	-	-	6	14	7	-	127	45	-
Tainan County	-	-	4	14	5	1	221	43	-
Kao-Ping Area									
Kaohsiung City	-	-	2	86	1	-	405	84	-
Kaohsiung County	-	1	1	56	2	-	375	41	-
Pingtung County	-	-	-	44	2	1	275	48	-
Penghu County	-	-	-	7	-	-	16	4	-
Eastern Area									
Hualien County	-	-	-	16	2	2	110	21	-
Taitung County	-	-	-	26	-	-	59	9	-
Others	-	-	-	-	-	-	-	-	-

Note : [1]The case amount of these diseases contained imported ones, including four Acute Hepatitis E and two Legionellosis cases confirmed.

[5]Calculation for Mumps based on reported cases only.

[6]The caseload of Syphilis and Gonorrhea were estimated by the date of diagnosis.

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Midyear population	Category III				Category IV		
		Enteroviruses Infection with Severe Complications	HIV[7] Infection	AIDS[7]	Hansen's[4,6] Disease	Herpesvirus B Infection	Leptospirosis[1]	Melioidosis
Total	23,078,402	29	1,648	930	7	-	203	44
Taipei Area								
Taipei City	2,615,176	2	255	112	1	-	3	-
Taipei County	3,853,692	6	406	192	1	-	15	-
Keelung City	388,650	-	25	12	-	-	1	-
Yilan County	461,263	1	12	2	-	-	2	-
Kinmen County	89,187	-	3	1	-	-	-	-
Lienchiang County	9,837	-	-	-	-	-	-	-
Northern Area								
Taoyuan County	1,968,734	3	141	120	1	-	3	1
Hsinchu City	408,479	1	37	20	-	-	1	-
Hsinchu County	507,077	-	15	12	-	-	2	-
Miaoli County	561,071	-	18	5	-	-	3	-
Central Area								
Taichung City	1,069,882	1	112	66	-	-	1	1
Taichung County	1,560,035	1	95	42	-	-	5	-
Changhua County	1,312,701	2	57	36	2	-	10	-
Nantou County	531,288	-	20	8	-	-	3	-
Southern Area								
Yunlin County	723,235	1	43	33	-	-	2	1
Chiayi City	273,827	5	8	4	-	-	-	1
Chiayi County	548,224	1	19	28	-	-	-	-
Tainan City	769,756	-	38	29	1	-	2	8
Tainan County	1,104,449	1	40	55	-	-	-	1
Kao-Ping Area								
Kaohsiung City	1,526,778	2	139	52	1	-	7	15
Kaohsiung County	1,243,192	1	95	46	-	-	15	10
Pingtung County	883,739	1	53	39	-	-	127	4
Penghu County	94,759	-	3	2	-	-	-	1
Eastern Area								
Hualien County	341,198	-	10	8	-	-	-	1
Taitung County	232,173	-	4	6	-	-	1	-
Others		-	-	-	-	-	-	-

Note : [1]Two confirmed cases of Leptospirosis were imported.

[4]The confirmed cases of Hansen's Disease included three Taiwanese and four Indonesian.

[6]The caseload of Hansen's Disease was estimated by the date of diagnosis.

[7]The caseload of HIV Infection and AIDS were estimated by the date of diagnosis, and did not include the cases of foreign nationality.

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Category IV								
	Botulism	Invasive[1] Pneumococcal Disease	Q Fever	Endemic[1] Typhus Fever	Lyme Disease	Tularemia	Scrub[1] Typhus	Varicella[5]	Cat-Scratch Disease
Total	1	690	89	40	-	-	353	10,931	26
Taipei Area									
Taipei City	-	38	1	1	-	-	21	2,552	2
Taipei County	1	99	1	3	-	-	21	2,633	3
Keelung City	-	9	-	-	-	-	3	177	2
Yilan County	-	21	-	-	-	-	9	176	1
Kinmen County	-	-	-	-	-	-	47	86	-
Lienchiang County	-	-	-	-	-	-	10	3	-
Northern Area									
Taoyuan County	-	52	1	2	-	-	9	928	5
Hsinchu City	-	18	-	-	-	-	1	215	1
Hsinchu County	-	20	-	-	-	-	2	323	3
Miaoli County	-	9	2	-	-	-	4	323	-
Central Area									
Taichung City	-	32	-	-	-	-	4	320	1
Taichung County	-	67	3	4	-	-	3	403	-
Changhua County	-	37	6	10	-	-	6	454	2
Nantou County	-	17	-	1	-	-	24	160	-
Southern Area									
Yunlin County	-	28	3	1	-	-	1	118	-
Chiayi City	-	13	-	-	-	-	-	73	-
Chiayi County	-	23	-	-	-	-	-	119	1
Tainan City	-	25	5	1	-	-	4	168	-
Tainan County	-	33	12	2	-	-	3	195	1
Kao-Ping Area									
Kaohsiung City	-	31	10	6	-	-	11	472	-
Kaohsiung County	-	45	29	5	-	-	20	356	1
Pingtung County	-	42	16	4	-	-	13	204	1
Penghu County	-	-	-	-	-	-	32	68	-
Eastern Area									
Hualien County	-	20	-	-	-	-	47	258	1
Taitung County	-	11	-	-	-	-	58	147	1
Others	-	-	-	-	-	-	-	-	-

Note : [1]The case amount of these diseases contained imported ones, including one Invasive Pneumococcal Disease, two Endemic Typhus Fever and one Scrub Typhus cases confirmed.

[5]Calculation for Varicella based on reported cases only.

Table 1 (Continued) Confirmed cases number of notifiable diseases — by locality, 2009

Unit : Person

Area / Locality	Midyear population	Category IV			Category V				
		Toxoplasmosis	Severe[1] Complicated Influenza Case	Creutzfeldt-[6] Jakob Disease	Rift Valley Fever	Marburg Haemorrhagic Fever	Yellow Fever	Ebola Haemorrhagic Fever	Lassa Fever
Total	23,078,402	7	1,134	3	-	-	-	-	-
Taipei Area									
Taipei City	2,615,176	-	171	-	-	-	-	-	-
Taipei County	3,853,692	1	287	3	-	-	-	-	-
Keelung City	388,650	-	20	-	-	-	-	-	-
Yilan County	461,263	3	14	-	-	-	-	-	-
Kinmen County	89,187	-	1	-	-	-	-	-	-
Lienchiang County	9,837	-	-	-	-	-	-	-	-
Northern Area									
Taoyuan County	1,968,734	-	67	-	-	-	-	-	-
Hsinchu City	408,479	-	15	-	-	-	-	-	-
Hsinchu County	507,077	-	27	-	-	-	-	-	-
Miaoli County	561,071	-	62	-	-	-	-	-	-
Central Area									
Taichung City	1,069,882	-	24	-	-	-	-	-	-
Taichung County	1,560,035	-	49	-	-	-	-	-	-
Changhua County	1,312,701	3	43	-	-	-	-	-	-
Nantou County	531,288	-	11	-	-	-	-	-	-
Southern Area									
Yunlin County	723,235	-	30	-	-	-	-	-	-
Chiayi City	273,827	-	14	-	-	-	-	-	-
Chiayi County	548,224	-	14	-	-	-	-	-	-
Tainan City	769,756	-	24	-	-	-	-	-	-
Tainan County	1,104,449	-	20	-	-	-	-	-	-
Kao-Ping Area									
Kaohsiung City	1,526,778	-	42	-	-	-	-	-	-
Kaohsiung County	1,243,192	-	41	-	-	-	-	-	-
Pingtung County	883,739	-	49	-	-	-	-	-	-
Penghu County	94,759	-	7	-	-	-	-	-	-
Eastern Area									
Hualien County	341,198	-	95	-	-	-	-	-	-
Taitung County	232,173	-	7	-	-	-	-	-	-
Others		-	-	-	-	-	-	-	-

Note : [1]Seven confirmed cases of Severe Complicated Influenza Cases were imported.

[6]The caseload of Creutzfeldt-Jakob Disease was estimated by the date of diagnosis.

Table 2 Confirmed cases number and incidence[8] rate of notifiable diseases — by age group, 2009

Unit : Person

Disease	<1 yr		1-4 yrs		5-14 yrs		15-24 yrs		25-39 yrs	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I										
Smallpox	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever[1]	-	-	1	0.12	-	-	27	0.84	42	0.73
Dengue Fever[1]	-	-	7	0.84	56	1.98	105	3.25	264	4.60
Dengue Hemorrhagic Fever / Dengue Shock Syndrome	-	-	-	-	-	-	1	0.03	-	-
Meningococcal Meningitis	1	0.54	-	-	1	0.04	-	-	-	-
Paratyphoid Fever[1]	-	-	-	-	1	0.04	1	0.03	3	0.05
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[2]	2	1.08	13	1.57	30	1.06	-	-	-	-
Shigellosis[1]	-	-	1	0.12	10	0.35	12	0.37	34	0.59
Amoebiasis[1]	-	-	-	-	-	-	13	0.40	91	1.59
Malaria[1]										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	-	-	-	-	-	-	3	0.09	3	0.05
Measles[1]	12	6.48	14	1.69	3	0.11	11	0.34	8	0.14
Acute Hepatitis A[1]	-	-	-	-	8	0.28	42	1.30	89	1.55
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	1	0.02

Note : [1]The case amount of these diseases contained imported ones, including 64 Typhoid Fever, 204 Dengue Fever, four Paratyphoid Fever, 52 Shigellosis, 68 Amoebiasis, 11 Malaria, nine Measles and 24 Acute Hepatitis A cases confirmed.

[2]Acute Flaccid Paralysis cases above15 years old had been excluded since 2005.

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

Table 2 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by age group, 2009

Unit : Person

Disease	40-64 yrs		≥ 65 yrs		Age not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I								
Smallpox	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever[1]	7	0.09	3	0.12	-	-	80	0.35
Dengue Fever[1]	472	6.02	148	6.09	-	-	1,052	4.56
Dengue Hemorrhagic Fever / Dengue Shock Syndrome	3	0.04	7	0.29	-	-	11	0.05
Meningococcal Meningitis	-	-	-	-	-	-	2	0.01
Paratyphoid Fever[1]	-	-	1	0.04	-	-	6	0.03
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[2]	-	-	-	-	-	-	45	0.19
Shigellosis[1]	25	0.32	9	0.37	-	-	91	0.39
Amoebiasis[1]	62	0.79	24	0.99	-	-	190	0.82
Malaria[1]								
Indigenous	-	-	-	-	-	-	-	-
Imported	5	0.06	-	-	-	-	11	0.05
Measles[1]	-	-	-	-	-	-	48	0.21
Acute Hepatitis A[1]	74	0.94	21	0.86	-	-	234	1.01
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome								
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	-	-	2	0.08	-	-	3	0.01

Note : [1]The case amount of these diseases contained imported ones, including 64 Typhoid Fever, 204 Dengue Fever, four Paratyphoid Fever, 52 Shigellosis, 68 Amoebiasis, 11 Malaria, nine Measles and 24 Acute Hepatitis A cases confirmed.

[2]Acute Flaccid Paralysis cases above15 years old had been excluded since 2005.

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

Table 2 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by age group, 2009

Unit : Person

Disease	<1 yr		1-4 yrs		5-14 yrs		15-24 yrs		25-39 yrs	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Rubella[1]	-	-	-	-	2	0.07	7	0.22	11	0.19
MDR-TB[3]	-	-	-	-	-	-	14	0.43	35	0.61
Chikungunya Fever[1]	-	-	-	-	1	0.04	3	0.09	2	0.03
West Nile Fever	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis	25	13.51	3	0.36	33	1.17	7	0.22	13	0.23
Tetanus[5]	-	-	-	-	-	-	1	0.03	-	-
Japanese Encephalitis[1]	-	-	-	-	-	-	2	0.06	2	0.03
Tuberculosis[3]										
Smear-positive	-	-	1	0.12	17	0.60	207	6.41	532	9.27
Others	4	2.16	20	2.41	58	2.05	475	14.71	852	14.85
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis										
B[1]	-	-	1	0.12	1	0.04	19	0.59	64	1.12
C	-	-	-	-	1	0.04	13	0.40	48	0.84
D	-	-	-	-	-	-	-	-	-	-
E[1]	-	-	-	-	-	-	-	-	2	0.03
Unspecified	-	-	-	-	1	0.04	2	0.06	3	0.05
Mumps[5]	3	1.62	230	27.74	520	18.39	67	2.08	102	1.78
Legionellosis[1]	-	-	-	-	-	-	1	0.03	1	0.02
Invasive Haemophilus Influenzae Type b Infection	1	0.54	6	0.72	5	0.18	-	-	-	-
Syphilis[6]	21	11.35	-	-	3	0.11	666	20.63	1,974	34.41
Gonorrhea[6]	3	1.62	1	0.12	7	0.25	601	18.62	1,160	20.22
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	4	2.16	20	2.41	5	0.18	-	-	-	-
HIV Infection[7]	-	-	1	0.12	1	0.04	413	12.79	849	14.80
AIDS[7]	-	-	-	-	1	0.04	88	2.73	517	9.01

Note: [1]The case amount of these diseases contained imported ones, including eight Rubella, nine Chikungunya Fever, one Japanese Encephalitis, six Acute Hepatitis B, four Acute Hepatitis E and two Legionellosis cases confirmed.

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

[5]Calculation for Tetanus and Mumps based on reported cases only.

[6]The caseload of Syphilis and Gonorrhea were estimated by the date of diagnosis.

[7]The caseload of HIV Infection and AIDS were estimated by the date of diagnosis, and did not include the cases of foreign nationality.

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

Table 2 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by age group, 2009

Unit : Person

Disease	40-64 yrs		≥ 65 yrs		Age not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Rubella[1]	3	0.04	-	-	-	-	23	0.10
MDR-TB[3]	72	0.92	55	2.26	-	-	176	0.76
Chikungunya Fever[1]	1	0.01	2	0.08	-	-	9	0.04
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Category III								
Pertussis	8	0.10	1	0.04	-	-	90	0.39
Tetanus[5]	3	0.04	8	0.33	-	-	12	0.05
Japanese Encephalitis[1]	11	0.14	3	0.12	-	-	18	0.08
Tuberculosis[3]								
Smear-positive	1,740	22.19	2,713	111.65	-	-	5,210	22.58
Others	2,352	29.99	4,365	179.63	-	-	8,126	35.21
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B[1]	55	0.70	12	0.49	-	-	152	0.66
C	49	0.62	20	0.82	-	-	131	0.57
D	1	0.01	-	-	-	-	1	0.00
E[1]	5	0.06	2	0.08	-	-	9	0.04
Unspecified	6	0.08	6	0.25	-	-	18	0.08
Mumps[5]	112	1.43	34	1.40	-	-	1,068	4.63
Legionellosis[1]	39	0.50	43	1.77	-	-	84	0.36
Invasive Haemophilus Influenzae Type b Infection	1	0.01	1	0.04	-	-	14	0.06
Syphilis[6]	2,578	32.87	1,426	58.68	-	-	6,668	28.89
Gonorrhea[6]	333	4.25	32	1.32	-	-	2,137	9.26
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	-	-	-	-	-	-	29	0.13
HIV Infection[7]	366	4.67	18	0.74	-	-	1,648	7.14
AIDS[7]	308	3.93	16	0.66	-	-	930	4.03

Note :[1]The case amount of these diseases contained imported ones, including eight Rubella, nine Chikungunya Fever, one Japanese Encephalitis, six Acute Hepatitis B, four Acute Hepatitis E and two Legionellosis cases confirmed.

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

[5]Calculation for Tetanus and Mumps based on reported cases only.

[6]The caseload of Syphilis and Gonorrhea were estimated by the date of diagnosis.

[7]The caseload of HIV Infection and AIDS were estimated by the date of diagnosis, and did not include the cases of foreign nationality.

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

Table 2 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by age group, 2009

Unit : Person

Disease	<1 yr		1-4 yrs		5-14 yrs		15-24 yrs		25-39 yrs	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Hansen's Disease[4,6]	-	-	-	-	-	-	-	-	4	0.07
Category IV										
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-
Leptospirosis[1]	-	-	-	-	5	0.18	13	0.40	53	0.92
Melioidosis	-	-	-	-	-	-	-	-	2	0.03
Botulism	-	-	-	-	-	-	1	0.03	-	-
Invasive Pneumococcal Disease[1]	12	6.48	132	15.92	41	1.45	10	0.31	61	1.06
Q Fever	-	-	-	-	-	-	4	0.12	26	0.45
Endemic Typhus Fever[1]	-	-	-	-	-	-	2	0.06	13	0.23
Lyme Disease	-	-	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-	-	-
Scrub Typhus[1]	-	-	5	0.60	11	0.39	45	1.39	70	1.22
Varicella[5]	363	196.13	732	88.29	6,303	222.92	1,282	39.71	1,875	32.69
Cat-Scratch Disease	-	-	1	0.12	5	0.18	4	0.12	9	0.16
Toxoplasmosis	-	-	-	-	1	0.04	2	0.06	3	0.05
Severe Complicated Influenza Case[1]	22	11.89	117	14.11	313	11.07	154	4.77	157	2.74
Creutzfeldt-Jakob Disease[6]	-	-	-	-	-	-	-	-	1	0.02
Category V										
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-

Note :[1]The case amount of these diseases contained imported ones, including two Leptospirosis, one Invasive Pneumococcal Disease, two Endemic Typhus Fever, one Scrub Typhus and seven Severe Complicated Influenza Cases confirmed.

[4]The confirmed cases of Hansen's Disease included three Taiwanese and four Indonesian.

[5]Calculation for Varicella based on reported cases only.

[6]The caseload of Hansen's Disease and Creutzfeldt-Jakob Disease were estimated by the date of diagnosis.

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

Table 2 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by age group, 2009

Unit : Person

Disease	40-64 yrs		≥ 65 yrs		Age not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Hansen's Disease[4,6]	-	-	3	0.12	-	-	7	0.03
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis[1]	109	1.39	23	0.95	-	-	203	0.88
Melioidosis	18	0.23	24	0.99	-	-	44	0.19
Botulism	-	-	-	-	-	-	1	0.00
Invasive Pneumococcal Disease[1]	196	2.50	238	9.79	-	-	690	2.99
Q Fever	49	0.62	10	0.41	-	-	89	0.39
Endemic Typhus Fever[1]	21	0.27	4	0.16	-	-	40	0.17
Lyme Disease	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus[1]	173	2.21	49	2.02	-	-	353	1.53
Varicella[5]	321	4.09	55	2.26	-	-	10,931	47.36
Cat-Scratch Disease	6	0.08	1	0.04	-	-	26	0.11
Toxoplasmosis	1	0.01	-	-	-	-	7	0.03
Severe Complicated Influenza Case[1]	233	2.97	138	5.68	-	-	1,134	4.91
Creutzfeldt-Jakob Disease[6]	1	0.01	1	0.04	-	-	3	0.01
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-

Note :[1]The case amount of these diseases contained imported ones, including two Leptospirosis, one Invasive Pneumococcal Disease, two Endemic Typhus Fever, one Scrub Typhus and seven Severe Complicated Influenza Cases confirmed.

[4]The confirmed cases of Hansen's Disease included three Taiwanese and four Indonesian.

[5]Calculation for Varicella based on reported cases only.

[6]The caseload of Hansen's Disease and Creutzfeldt-Jakob Disease were estimated by the date of diagnosis.

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

Table 3 Confirmed cases number of notifiable diseases— by month, 2009

Unit : Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Category I													
Smallpox	-	-	-	-	-	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-	-	-	-	-	-
Category II													
Diphtheria	-	-	-	-	-	-	-	-	-	-	-	-	-
Typhoid Fever[1]	4	2	4	12	15	12	7	3	6	5	3	7	80
Dengue Fever[1]	22	10	10	19	12	23	33	89	53	184	376	221	1,052
Dengue Hemorrhagic Fever / Dengue Shock Syndrome	-	-	-	-	-	-	-	1	-	2	6	2	11
Meningococcal Meningitis	-	-	-	1	-	-	-	-	1	-	-	-	2
Paratyphoid Fever[1]	1	-	-	-	-	-	1	-	1	-	-	3	6
Poliomyelitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[2]	5	2	2	4	5	6	5	4	4	3	-	5	45
Shigellosis[1]	8	8	4	4	9	8	4	8	4	2	24	8	91
Amoebiasis[1]	6	33	13	11	12	22	20	11	6	14	19	23	190
Malaria[1]													
Indigenous	-	-	-	-	-	-	-	-	-	-	-	-	-
Imported	1	1	1	-	-	-	3	-	1	1	2	1	11
Measles[1]	1	21	9	13	3	-	-	1	-	-	-	-	48
Acute Hepatitis A[1]	17	21	13	11	12	20	16	14	31	24	23	32	234
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Hantavirus Syndrome													
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Cholera	-	-	-	-	-	-	-	-	3	-	-	-	3

Note : [1]The case amount of these diseases contained imported ones, including 64 Typhoid Fever, 204 Dengue Fever, four Paratyphoid Fever, 52 Shigellosis, 68 Amoebiasis, 11 Malaria, nine Measles and 24 Acute Hepatitis A cases confirmed.

[2]Acute Flaccid Paralysis cases above15 years old had been excluded since 2005.

Table 3 (Continued) Confirmed cases number of notifiable diseases— by month, 2009

Unit : Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Rubella[1]	4	3	3	3	3	4	-	-	1	-	1	1	23
MDR-TB[3]	17	16	13	16	8	19	16	13	12	16	14	16	176
Chikungunya Fever[1]	1	-	-	2	1	-	-	1	1	-	1	2	9
West Nile Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Category III													
Pertussis	4	10	5	7	24	20	11	5	1	-	3	-	90
Tetanus[5]	2	-	1	3	1	1	-	1	-	-	3	-	12
Japanese Encephalitis[1]	-	-	1	-	1	-	11	3	-	2	-	-	18
Tuberculosis[3]													
Smear-positive	335	448	455	452	437	489	452	429	436	447	405	425	5,210
Others	583	618	691	726	670	742	693	676	632	747	622	726	8,126
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-	-	-	-	-	-
Acute Hepatitis													
B[1]	13	21	12	11	15	12	12	12	14	11	6	13	152
C	10	16	9	10	14	14	11	11	12	10	6	8	131
D	-	-	-	-	1	-	-	-	-	-	-	-	1
E[1]	3	1	-	-	1	-	-	2	1	1	-	-	9
Unspecified	1	5	3	1	1	-	1	2	1	-	-	3	18
Mumps[5]	56	65	97	103	124	129	97	96	95	78	70	58	1,068
Legionellosis[1]	5	5	7	7	4	4	8	10	9	9	8	8	84
Invasive Haemophilus Influenzae Type b Infection	1	4	1	1	1	1	2	-	-	-	-	3	14
Syphilis[6]	409	555	590	533	542	605	606	601	598	542	517	570	6,668
Gonorrhea[6]	134	172	167	172	159	173	190	176	188	210	209	187	2,137
Neonatal Tetanus	-	-	-	-	-	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	4	3	6	4	4	3	4	1	-	-	-	-	29
HIV Infection[7]	101	131	166	141	141	122	141	144	143	135	137	146	1,648
AIDS[7]	67	88	67	92	78	82	75	83	70	91	62	75	930

Note : [1]The case amount of these diseases contained imported ones, including eight Rubella, nine Chikungunya Fever, one Japanese Encephalitis, six Acute Hepatitis B, four Acute Hepatitis E and two Legionellosis cases confirmed.

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

[5]Calculation for Tetanus and Mumps based on reported cases only.

[6]The caseload of Syphilis and Gonorrhea were estimated by the date of diagnosis.

[7]The caseload of HIV Infection and AIDS were estimated by the date of diagnosis, and did not include the cases of foreign nationality.

Table 3 (Continued) Confirmed cases number of notifiable diseases— by month, 2009

Unit : Person

Disease	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Hansen's Disease[4,6]	1	1	2	-	-	-	-	-	1	-	-	2	7
Category IV													
Herpesvirus B Infection	-	-	-	-	-	-	-	-	-	-	-	-	-
Leptospirosis[1]	2	-	-	6	1	5	13	137	17	15	4	3	203
Melioidosis	-	1	3	1	1	2	2	23	6	1	1	3	44
Botulism	-	-	1	-	-	-	-	-	-	-	-	-	1
Invasive Pneumococcal Disease[1]	106	71	66	69	52	30	42	33	43	59	53	66	690
Q Fever	6	7	13	13	9	15	9	1	4	4	3	5	89
Endemic Typhus Fever[1]	2	3	5	3	4	2	7	5	4	2	2	1	40
Lyme Disease	-	-	-	-	-	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-	-	-	-	-	-
Scrub Typhus[1]	25	19	11	16	25	44	71	29	32	24	22	35	353
Varicella[5]	1,336	1,191	1,105	1,398	1,428	1,091	741	550	471	494	527	599	10,931
Cat-Scratch Disease	1	1	1	1	4	4	1	7	2	1	-	3	26
Toxoplasmosis	-	2	1	-	-	1	1	-	-	1	1	-	7
Severe Complicated Influenza Case[1]	9	6	4	-	-	-	21	250	264	217	258	105	1,134
Creutzfeldt-Jakob Disease[6]	-	-	-	-	-	-	-	-	-	-	-	3	3
Category V													
Rift Valley Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-	-	-	-	-	-

Note :[1]The case amount of these diseases contained imported ones, including two Leptospirosis, one Invasive Pneumococcal Disease, two Endemic Typhus Fever, one Scrub Typhus and seven Severe Complicated Influenza Cases confirmed.

[4]The confirmed cases of Hansen's Disease included three Taiwanese and four Indonesian.

[5]Calculation for Varicella based on reported cases only.

[6]The caseload of Hansen's Disease and Creutzfeldt-Jakob Disease were estimated by the date of diagnosis.

Table 4 Confirmed cases number and incidence[8] rate of notifiable diseases — by sex, 2009

Unit : Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Category I								
Smallpox	-	-	-	-	-	-	-	-
Plague	-	-	-	-	-	-	-	-
SARS	-	-	-	-	-	-	-	-
Rabies	-	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-
H5N1 Influenza	-	-	-	-	-	-	-	-
Category II								
Diphtheria	-	-	-	-	-	-	-	-
Typhoid Fever[1]	66	0.58	14	0.12	-	-	80	0.35
Dengue Fever[1]	535	4.67	517	4.44	-	-	1,052	4.56
Dengue Hemorrhagic Fever/ Dengue Shock Syndrome	5	0.04	6	0.05	-	-	11	0.05
Meningococcal Meningitis	1	0.01	1	0.01	-	-	2	0.01
Paratyphoid Fever[1]	2	0.02	4	0.03	-	-	6	0.03
Poliomyelitis	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[2]	20	0.17	25	0.21	-	-	45	0.19
Shigellosis[1]	47	0.41	44	0.38	-	-	91	0.39
Amoebiasis[1]	82	0.72	108	0.93	-	-	190	0.82
Malaria[1]								
Indigenous	-	-	-	-	-	-	-	-
Imported	1	0.01	10	0.09	-	-	11	0.05
Measles[1]	15	0.13	33	0.28	-	-	48	0.21
Acute Hepatitis A[1]	99	0.86	135	1.16	-	-	234	1.01
Enterohaemorrhagic *E. coli* Infection	-	-	-	-	-	-	-	-
Hantavirus Syndrome								
Hemorrhagic Fever with Renal Syndrome	-	-	-	-	-	-	-	-
Hantavirus Pulmonary Syndrome	-	-	-	-	-	-	-	-
Cholera	2	0.02	1	0.01	-	-	3	0.01

Note: [1]The case amount of these diseases contained imported ones, including 64 Typhoid Fever, 204 Dengue Fever, four Paratyphoid Fever, 52 Shigellosis, 68 Amoebiasis, 11 Malaria, nine Measles and 24 Acute Hepatitis A cases confirmed.

[2]Acute Flaccid Paralysis cases above15 years old had been excluded since 2005.

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

Table 4 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by sex, 2009

Unit : Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Rubella[1]	6	0.05	17	0.15	-	-	23	0.10
MDR-TB[3]	59	0.52	117	1.01	-	-	176	0.76
Chikungunya Fever[1]	4	0.03	5	0.04	-	-	9	0.04
West Nile Fever	-	-	-	-	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-
Category III								
Pertussis	49	0.43	41	0.35	-	-	90	0.39
Tetanus[5]	6	0.05	6	0.05	-	-	12	0.05
Japanese Encephalitis[1]	5	0.04	13	0.11	-	-	18	0.08
Tuberculosis[3]								
Smear-positive	1,483	12.96	3,727	32.04	-	-	5,210	22.58
Others	2,592	22.64	5,534	47.58	-	-	8,126	35.21
Congenital Rubella Syndrome	-	-	-	-	-	-	-	-
Acute Hepatitis								
B[1]	51	0.45	101	0.87	-	-	152	0.66
C	38	0.33	93	0.80	-	-	131	0.57
D	-	-	1	0.01	-	-	1	0.00
E[1]	2	0.02	7	0.06	-	-	9	0.04
Unspecified	8	0.07	10	0.09	-	-	18	0.08
Mumps[5]	415	3.63	653	5.61	-	-	1,068	4.63
Legionellosis[1]	21	0.18	63	0.54	-	-	84	0.36
Invasive Haemophilus Influenzae Type b Infection	6	0.05	8	0.07	-	-	14	0.06
Syphilis[6]	2,059	17.99	4,609	39.63	-	-	6,668	28.89
Gonorrhea[6]	222	1.94	1,915	16.46	-	-	2,137	9.26
Neonatal Tetanus	-	-	-	-	-	-	-	-
Enteroviruses Infection with Severe Complications	9	0.08	20	0.17	-	-	29	0.13
HIV Infection[7]	68	0.59	1,580	13.58	-	-	1,648	7.14
AIDS[7]	55	0.48	875	7.52	-	-	930	4.03

Note: [1]The case amount of these diseases contained imported ones, including eight Rubella, nine Chikungunya Fever, one Japanese Encephalitis, six Acute Hepatitis B, four Acute Hepatitis E and two Legionellosis cases confirmed.

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

[5]Calculation for Tetanus and Mumps based on reported cases only.

[6]The caseload of Syphilis and Gonorrhea were estimated by the date of diagnosis.

[7]The caseload of HIV Infection and AIDS were estimated by the date of diagnosis, and did not include the cases of foreign nationality.

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

Table 4 (Continued) Confirmed cases number and incidence[8] rate of notifiable diseases — by sex, 2009

Unit : Person

Disease	Female		Male		Sex not stated		Total	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Hansen's Disease[4,6]	6	0.05	1	0.01	-	-	7	0.03
Category IV								
Herpesvirus B Infection	-	-	-	-	-	-	-	-
Leptospirosis[1]	43	0.38	160	1.38	-	-	203	0.88
Melioidosis	11	0.10	33	0.28	-	-	44	0.19
Botulism	-	-	1	0.01	-	-	1	0.00
Invasive Pneumococcal Disease[1]	225	1.97	465	4.00	-	-	690	2.99
Q Fever	12	0.10	77	0.66	-	-	89	0.39
Endemic Typhus Fever[1]	10	0.09	30	0.26	-	-	40	0.17
Lyme Disease	-	-	-	-	-	-	-	-
Tularemia	-	-	-	-	-	-	-	-
Scrub Typhus[1]	130	1.14	223	1.92	-	-	353	1.53
Varicella[5]	5,123	44.75	5,808	49.93	-	-	10,931	47.36
Cat-Scratch Disease	10	0.09	16	0.14	-	-	26	0.11
Toxoplasmosis	3	0.03	4	0.03	-	-	7	0.03
Severe Complicated Influenza Case[1]	514	4.49	620	5.33	-	-	1,134	4.91
Creutzfeldt-Jakob Disease[6]	2	0.02	1	0.01	-	-	3	0.01
Category V								
Rift Valley Fever	-	-	-	-	-	-	-	-
Marburg Haemorrhagic Fever	-	-	-	-	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-
Lassa Fever	-	-	-	-	-	-	-	-

Note :[1]The case amount of these diseases contained imported ones, including two Leptospirosis, one Invasive Pneumococcal Disease, two Endemic Typhus Fever, one Scrub Typhus and seven Severe Complicated Influenza Cases confirmed.

[4]The confirmed cases of Hansen's Disease included three Taiwanese and four Indonesian.

[5]Calculation for Varicella based on reported cases only.

[6]The caseload of Hansen's Disease and Creutzfeldt-Jakob Disease were estimated by the date of diagnosis.

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

Table 5 Confirmed cases number of notifiable diseases — by year, 2000-2009

Unit : Person

Disease	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Category I										
Smallpox	…	…	…	…	…	…	-	-	-	-
Plague	-	-	-	-	-	-	-	-	-	-
SARS	…	…	…	347	-	-	-	-	-	-
Rabies	-	-	1	-	-	-	-	-	-	-
Anthrax	-	-	-	-	-	-	-	-	-	-
H5N1 Influenza	…	…	…	…	…	-	-	-	-	-
Category II										
Diphtheria	-	-	-	-	-	-	-	-	-	-
Typhoid Fever[1]	43	59	54	40	38	35	43	34	33	80
Dengue Fever[1]	140	270	5,388	145	427	306	1,074	2,179	714	1,052
Dengue Hemorrhagic Fever/ Dengue Shock Syndrome	1	11	242	2	7	5	19	12	5	11
Meningococcal Meningitis	16	43	46	26	24	20	13	20	19	2
Paratyphoid Fever[1]	3	11	18	15	19	13	10	6	11	6
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Acute Flaccid Paralysis[2]	63	101	84	65	56	61	66	51	74	45
Shigellosis[1]	321	1,327	436	246	156	174	139	246	90	91
Amoebiasis[1]	322	303	289	121	96	120	125	145	227	190
Malaria[1]										
Indigenous	-	-	-	-	-	-	-	-	-	-
Imported	42	29	28	34	18	26	26	13	18	11
Measles[1]	5*	9*	24	6	-	7	4	10	16	48
Acute Hepatitis A[1]	68	257	212	160	204	257	189	203	236	234
Enterohaemorrhagic *E. coli* Infection	-	1	-	-	-	-	-	-	-	-
Hantavirus Syndrome										
Hemorrhagic Fever with Renal Syndrome	…	1*	-	-	3	-	3	1	1	-
Hantavirus Pulmonary Syndrome	…	3*	-	-	-	-	-	-	-	-
Cholera	8	-	2	1	1	2	1	-	1	3

Note : [1]The case amount of these diseases contained imported ones, including 64 Typhoid Fever, 204 Dengue Fever, four Paratyphoid Fever, 52 Shigellosis, 68 Amoebiasis, 11 Malaria, nine Measles and 24 Acute Hepatitis A cases confirmed in 2009.

[2]Acute Flaccid Paralysis cases above15 years old had been excluded since 2005.

*The collative case numbers see the appendix 1.

Table 5 (Continued) Confirmed cases number of notifiable diseases — by year, 2000-2009

Unit : Person

Disease	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Rubella[1]	29	17	4	2	4	7	6	54	33	23
MDR-TB[3,9]	…	…	…	…	…	…	…	19	159	176
Chikungunya Fever[1,9]	…	…	…	…	…	…	…	2	9	9
West Nile Fever	…	…	…	…	…	…	-	-	-	-
Epidemic Typhus Fever	-	-	-	-	-	-	-	-	-	-
Category III										
Pertussis	47	6	18	26	21	38	14	41	41	90
Tetanus[5]	24	19	15	13	16	16	14	10	18	12
Japanese Encephalitis[1]	13	33	19	25	32	35	29	37	17	18
Tuberculosis[3]										
Smear-positive	4,276	4,512	5,928	5,203	5,784	5,748	5,542	5,734	5,559	5,210
Others	9,634	9,974	10,830	9,839	11,000	10,724	9,836	8,746	8,706	8,126
Congenital Rubella Syndrome	-	3	-	-	-	-	-	1	1	-
Acute Hepatitis										
B[1]	226	355	417	326*	378	321	245	202	231	152
C	4	152	156	167	195	172	154	153	124	131
D	-	4	9	11	12	4	5	1	4	1
E[1]	-	1	12	10*	18	21	11	12	14	9
Unspecified	-	-	-	-	-	10	9	10	22	18
Mumps[5]	375	444	664*	676	1,081	1,158	971	1,208	1,145	1,068
Legionellosis[1]	63	40	72	109	106	38	56	56	69	84
Invasive Haemophilus Influenzae Type b Infection	45	49	41	22	20	12	16	16	12	14
Syphilis[6]	3,875	4,256	4,182	3,947	5,209	5,305	5,808	5,798	6,526	6,668
Gonorrhea[6]	361	443	838	1,626	1,978	1,515	1,437	1,442	1,621	2,137
Neonatal Tetanus[9]	…	…	…	…	…	…	…	-	-	-
Enteroviruses Infection with Severe Complications	291	393	162	70	50	142	11	12	373	29
HIV Infection[7]	570*	689	773*	857*	1,521*	3,403	2,938	1,935	1,752	1,648
AIDS[7]	181*	165*	177*	225*	257*	506	579	1,061	849	930

Note :[1]The case amount of these diseases contained imported ones, including eight Rubella, nine Chikungunya Fever, one Japanese Encephalitis, six Acute Hepatitis B, four Acute Hepatitis E and two Legionellosis cases confirmed in 2009.

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

[5]Calculation for Tetanus and Mumps based on reported cases only.

[6]The caseload of Syphilis and Gonorrhea were estimated by the date of diagnosis.

[7]The caseload of HIV Infection and AIDS were estimated by the date of diagnosis, and did not include the cases of foreign nationality.

[9]The statistics of MDR-TB, Chikungunya Fever and Neonatal Tetanus were conducted with the proclamation validated since October 15th, 2007.

*The collative case numbers see the appendix 1.

Table 5 (Continued) Confirmed cases number of notifiable diseases — by year, 2000-2009

Unit : Person

Disease	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Hansen's Disease[4,6]	4	2	7*	2*	5*	9	11	12	8	7
Category IV										
Herpesvirus B Infection[9]	…	…	…	…	…	…	…	-	-	-
Leptospirosis[1,9]	…	…	…	…	…	…	…	10	47	203
Melioidosis[9]	…	…	…	…	…	…	…	4	45	44
Botulism[9]	…	…	…	…	…	…	…	4	11	1
Invasive Pneumococcal Disease[1,9]	…	…	…	…	…	…	…	169	805	690
Q Fever[9]	…	…	…	…	…	…	…	17	91	89
Endemic Typhus Fever[1,9]	…	…	…	…	…	…	…	6	31	40
Lyme Disease[9]	…	…	…	…	…	…	…	1	2	-
Tularemia[9]	…	…	…	…	…	…	…	-	-	-
Scrub Typhus[1]	270	235	237	271	368	462	384	510	492	353
Varicella[5]	5,863	5,316	13,070*	12,270*	13,219	13,600	10,563	11,110	11,877	10,931
Cat-Scratch Disease[9]	…	…	…	…	…	…	…	1	28	26
Toxoplasmosis[9]	…	…	…	…	…	…	…	2	3	7
Severe Complicated Influenza Case[1]	4	7	5	16	19	33	25	26	22	1,134
Creutzfeldt-Jakob Disease[6,9]	…	…	…	…	…	…	…	-	-	3
Category V										
Rift Valley Fever	…	…	…	…	…	…	-	-	-	-
Marburg Haemorrhagic Fever	…	…	…	…	…	…	-	-	-	-
Yellow Fever	-	-	-	-	-	-	-	-	-	-
Ebola Haemorrhagic Fever	-	-	-	-	-	-	-	-	-	-
Lassa Fever	…	…	…	…	…	…	-	-	-	-

Note :[1]The case amount of these diseases contained imported ones, including two Leptospirosis, one Invasive Pneumococcal Disease, two Endemic Typhus Fever, one Scrub Typhus and seven Severe Complicated Influenza Cases confirmed in 2009.

[4]The confirmed cases of Hansen's Disease included three Taiwanese and four Indonesian.

[5]Calculation for Varicella based on reported cases only.

[6]The caseload of Hansen's Disease and Creutzfeldt-Jakob Disease were estimated by the date of diagnosis.

[9]The statistics of Herpesvirus B Infection, Leptospirosis, Melioidosis, Botulism, Invasive Pneumococcal Disease,Q Fever, Endemic Typhus Fever, Lyme Disease, Tularemia, Cat-Scratch Disease, Toxoplasmosis and Creutzfeldt-Jakob Disease were conducted with the proclamation validated since October 15th, 2007.

*The collative case numbers see the appendix 1.

Table 6 Analysis of time intervals between diagnosis and reporting for notifiable diseases — by locality, 2009

Unit : Day

Locality	2008			2009						
	Case no.	Average	Median	Case no.	Average	Median	<=24 hours		>24 hours	
							Case no.	%	Case no.	%
Total	4,527	0.2	0	6,572	0.3	0	6,540	99.5	32	0.5
Taipei City	755	0.3	0	1,254	0.3	0	1,253	99.9	1	0.1
Kaohsiung City	988	0.3	0	1,359	0.3	0	1,358	99.9	1	0.1
Taipei County	355	0.3	0	502	0.2	0	501	99.8	1	0.2
Yilan County	42	0.2	0	74	0.3	0	74	100.0	-	-
Taoyuan County	462	0.1	0	661	0.4	0	635	96.1	26	3.9
Hsinchu County	13	0.1	0	34	0.3	0	34	100.0	-	-
Miaoli County	44	0.2	0	47	0.1	0	47	100.0	-	-
Taichung County	126	0.3	0	169	0.3	0	169	100.0	-	-
Changhua County	118	0.3	0	233	0.1	0	233	100.0	-	-
Nantou County	26	0.0	0	44	0.4	0	43	97.7	1	2.3
Yunlin County	31	0.0	0	47	0.1	0	47	100.0	-	-
Chiayi County	20	0.1	0	36	0.1	0	36	100.0	-	-
Tainan County	103	0.2	0	105	0.1	0	105	100.0	-	-
Kaohsiung County	339	0.3	0	403	0.3	0	403	100.0	-	-
Pingtung County	178	0.3	0	467	0.2	0	467	100.0	-	-
Taitung County	33	0.1	0	24	0.3	0	23	95.8	1	4.2
Hualien County	190	0.1	0	170	0.2	0	169	99.4	1	0.6
Penghu County	7	0.3	0	11	0.4	0	11	100.0	-	-
Keelung City	25	0.1	0	41	0.1	0	41	100.0	-	-
Hsinchu City	39	0.2	0	160	0.1	0	160	100.0	-	-
Taichung City	252	0.2	0	341	0.2	0	341	100.0	-	-
Chiayi City	48	0.0	0	50	0.1	0	50	100.0	-	-
Tainan City	323	0.2	0	317	0.2	0	317	100.0	-	-
Kinmen County	10	0.3	0	17	0.3	0	17	100.0	-	-
Lienchiang County	-	-	-	6	0.0	0	6	100.0	-	-

Note : 1.Listed infectious diseases should be reported within 24 hours, which was not included MDR-TB, HIV and AIDS.

2. Analysis of time interval "between diagnosis and report received" has been separated into "between diagnosis and reporting" and "between reporting and report received" since 2003.

Table 7 Analysis of time intervals between reporting and reports received for notifiable diseases — by locality, 2009

Unit : Day

Locality	2008			2009						
	Case no.	Average	Median	Case no.	Average	Median	<=24 hours		>24 hours	
							Case no.	%	Case no.	%
Total	4,527	0.0	0	6,572	0.0	0	6,571	100.0	1	0.0
Taipei City	755	0.0	0	1,254	0.0	0	1,254	100.0	-	-
Kaohsiung City	988	0.0	0	1,359	0.0	0	1,359	100.0	-	-
Taipei County	355	0.0	0	502	0.0	0	502	100.0	-	-
Yilan County	42	0.0	0	74	0.0	0	74	100.0	-	-
Taoyuan County	462	0.0	0	661	0.0	0	661	100.0	-	-
Hsinchu County	13	0.0	0	34	0.0	0	34	100.0	-	-
Miaoli County	44	0.0	0	47	0.0	0	47	100.0	-	-
Taichung County	126	0.0	0	169	0.0	0	169	100.0	-	-
Changhua County	118	0.0	0	233	0.0	0	233	100.0	-	-
Nantou County	26	0.0	0	44	0.0	0	44	100.0	-	-
Yunlin County	31	0.0	0	47	0.0	0	47	100.0	-	-
Chiayi County	20	0.0	0	36	0.0	0	36	100.0	-	-
Tainan County	103	0.0	0	105	0.0	0	105	100.0	-	-
Kaohsiung County	339	0.0	0	403	0.0	0	403	100.0	-	-
Pingtung County	178	0.0	0	467	0.0	0	467	100.0	-	-
Taitung County	33	0.1	0	24	0.0	0	24	100.0	-	-
Hualien County	190	0.1	0	170	0.0	0	169	99.4	1	0.6
Penghu County	7	0.0	0	11	0.1	0	11	100.0	-	-
Keelung City	25	0.1	0	41	0.0	0	41	100.0	-	-
Hsinchu City	39	0.0	0	160	0.0	0	160	100.0	-	-
Taichung City	252	0.0	0	341	0.0	0	341	100.0	-	-
Chiayi City	48	0.0	0	50	0.0	0	50	100.0	-	-
Tainan City	323	0.0	0	317	0.0	0	317	100.0	-	-
Kinmen County	10	0.1	0	17	0.1	0	17	100.0	-	-
Lienchiang County	-	-	-	6	0.0	0	6	100.0	-	-

Note : 1. Listed infectious diseases should be reported within 24 hours, which was not included MDR-TB, HIV and AIDS.

2. Analysis of time interval "between diagnosis and report received" has been separated into "between diagnosis and reporting" and "between reporting and report received" since 2003.

Table 8 Analysis of time intervals between reports received from local health bureau to Taiwan CDC for notifiable diseases — by locality, 2009

Unit : Day

Locality	2008			2009						
	Case no.	Average	Median	Case no.	Average	Median	<=24 hours		>24 hours	
							Case no.	%	Case no.	%
Total	4,527	0.0	0	6,572	0.0	0	6,572	100.0	-	-
Taipei City	755	0.0	0	1,254	0.0	0	1,254	100.0	-	-
Kaohsiung City	988	0.0	0	1,359	0.0	0	1,359	100.0	-	-
Taipei County	355	0.0	0	502	0.0	0	502	100.0	-	-
Yilan County	42	0.0	0	74	0.0	0	74	100.0	-	-
Taoyuan County	462	0.0	0	661	0.0	0	661	100.0	-	-
Hsinchu County	13	0.0	0	34	0.0	0	34	100.0	-	-
Miaoli County	44	0.0	0	47	0.0	0	47	100.0	-	-
Taichung County	126	0.0	0	169	0.0	0	169	100.0	-	-
Changhua County	118	0.0	0	233	0.0	0	233	100.0	-	-
Nantou County	26	0.0	0	44	0.0	0	44	100.0	-	-
Yunlin County	31	0.0	0	47	0.0	0	47	100.0	-	-
Chiayi County	20	0.0	0	36	0.0	0	36	100.0	-	-
Tainan County	103	0.0	0	105	0.0	0	105	100.0	-	-
Kaohsiung County	339	0.0	0	403	0.0	0	403	100.0	-	-
Pingtung County	178	0.0	0	467	0.0	0	467	100.0	-	-
Taitung County	33	0.0	0	24	0.0	0	24	100.0	-	-
Hualien County	190	0.0	0	170	0.0	0	170	100.0	-	-
Penghu County	7	0.0	0	11	0.0	0	11	100.0	-	-
Keelung City	25	0.0	0	41	0.0	0	41	100.0	-	-
Hsinchu City	39	0.0	0	160	0.0	0	160	100.0	-	-
Taichung City	252	0.0	0	341	0.0	0	341	100.0	-	-
Chiayi City	48	0.0	0	50	0.0	0	50	100.0	-	-
Tainan City	323	0.0	0	317	0.0	0	317	100.0	-	-
Kinmen County	10	0.1	0	17	0.0	0	17	100.0	-	-
Lienchiang County	-	-	-	6	0.0	0	6	100.0	-	-

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, 2009

Unit : Person

Locality	Total					Acute flaccid paralysis					Neonatal tetanus				
	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)
Total	205	312	254	81.4	116	46	45	25	55.6	45	4	-	-	-	-
Taipei City	30	68	61	89.7	22	1	11	5	45.5	11	-	-	-	-	-
Kaohsiung City	35	36	24	66.7	21	10	10	4	40.0	10	-	-	-	-	-
Taipei County	26	20	19	95.0	5	4	-	-	-	-	4	-	-	-	-
Yilan County	9	6	6	100.0	1	9	1	1	100.0	1	-	-	-	-	-
Taoyuan County	-	41	24	58.5	20	-	5	-	-	5	-	-	-	-	-
Hsinchu County	4	4	3	75.0	-	-	-	-	-	-	-	-	-	-	-
Miaoli County	2	6	6	100.0	1	-	-	-	-	-	-	-	-	-	-
Taichung County	6	4	4	100.0	-	-	-	-	-	-	-	-	-	-	-
Changhua County	6	8	8	100.0	2	1	2	2	100.0	2	-	-	-	-	-
Nantou County	-	11	10	90.9	1	-	-	-	-	-	-	-	-	-	-
Yunlin County	1	3	3	100.0	1	-	-	-	-	-	-	-	-	-	-
Chiayi County	3	3	3	100.0	1	1	1	1	100.0	1	-	-	-	-	-
Tainan County	16	19	19	100.0	10	2	1	1	100.0	1	-	-	-	-	-
Kaohsiung County	21	21	18	85.7	6	3	2	2	100.0	2	-	-	-	-	-
Pingtung County	22	17	3	17.7	4	3	2	1	50.0	2	-	-	-	-	-
Taitung County	1	1	1	100.0	-	-	-	-	-	-	-	-	-	-	-
Hualien County	-	2	2	100.0	1	-	-	-	-	-	-	-	-	-	-
Penghu County	3	3	3	100.0	1	1	1	1	100.0	1	-	-	-	-	-
Keelung City	-	3	3	100.0	-	-	-	-	-	-	-	-	-	-	-
Hsinchu City	4	6	6	100.0	2	1	1	1	100.0	1	-	-	-	-	-
Taichung City	12	17	15	88.2	12	9	5	3	60.0	5	-	-	-	-	-
Chiayi City	-	1	1	100.0	1	-	1	1	100.0	1	-	-	-	-	-
Tainan City	4	11	11	100.0	4	1	2	2	100.0	2	-	-	-	-	-
Kinmen County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lienchiang County	-	1	1	100.0	-	-	-	-	-	-	-	-	-	-	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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 above 15 years old were excluded since 2005.

Table 9 (Continued) Cases of Acute Flaccid Paralysis, Neonatal Tetanus, Congenital Rubella Syndrome, and Measles Eradication Program — by Locality, 2009

Unit : Person

Locality	Congenital rubella syndrome					Measles					Rubella				
	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)	(1)	(2)	(3)	(3-1)	(4)
Total	4	-	-	-	-	103	184	157	85.3	48	48	83	72	86.8	23
Taipei City	-	-	-	-	-	18	36	35	97.2	3	11	21	21	100.0	8
Kaohsiung City	-	-	-	-	-	18	19	14	73.7	8	7	7	6	85.7	3
Taipei County	4	-	-	-	-	9	18	17	94.4	4	5	2	2	100.0	1
Yilan County	-	-	-	-	-	-	4	4	100.0	-	-	1	1	100.0	-
Taoyuan County	-	-	-	-	-	-	27	20	74.1	10	-	9	4	44.4	5
Hsinchu County	-	-	-	-	-	3	1	1	100.0	-	1	3	2	66.7	-
Miaoli County	-	-	-	-	-	2	4	4	100.0	1	-	2	2	100.0	-
Taichung County	-	-	-	-	-	3	1	1	100.0	-	3	3	3	100.0	-
Changhua County	-	-	-	-	-	4	4	4	100.0	-	1	2	2	100.0	-
Nantou County	-	-	-	-	-	-	7	6	85.7	1	-	4	4	100.0	-
Yunlin County	-	-	-	-	-	1	1	1	100.0	-	-	2	2	100.0	1
Chiayi County	-	-	-	-	-	2	2	2	100.0	-	-	-	-	-	-
Tainan County	-	-	-	-	-	14	18	18	100.0	9	-	-	-	-	-
Kaohsiung County	-	-	-	-	-	8	7	5	71.4	1	10	12	11	91.7	3
Pingtung County	-	-	-	-	-	14	12	2	16.7	2	5	3	-	-	-
Taitung County	-	-	-	-	-	-	-	-	-	-	1	1	1	100.0	-
Hualien County	-	-	-	-	-	-	1	1	100.0	-	-	1	1	100.0	1
Penghu County	-	-	-	-	-	1	1	1	100.0	-	1	1	1	100.0	-
Keelung City	-	-	-	-	-	-	2	2	100.0	-	-	1	1	100.0	-
Hsinchu City	-	-	-	-	-	2	3	3	100.0	-	1	2	2	100.0	1
Taichung City	-	-	-	-	-	2	10	10	100.0	7	1	2	2	100.0	-
Chiayi City	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tainan City	-	-	-	-	-	2	6	6	100.0	2	1	3	3	100.0	-
Kinmen County	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lienchiang County	-	-	-	-	-	-	-	-	-	-	-	1	1	100.0	-
Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Table 10 National Immunization coverage – by counties/cities

Unit : %

Vaccines	BCG			DTP					
Birth cohort	2008			2008			2007		
Dose	single dose			3rd dose			4th dose		
Locality	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage	Target population	Vaccinated population	Vaccination coverage
Total	198,486	194,745	98.12	198,486	190,660	96.06	204,749	193,230	94.37
Taipei City	21,264	20,779	97.72	21,264	20,601	96.88	22,368	21,291	95.19
Kaohsiung City	11,805	11,635	98.56	11,805	11,365	96.27	12,270	11,537	94.03
Taipei County	32,887	31,783	96.64	32,887	30,693	93.33	33,712	31,553	93.60
Yilan County	3,580	3,556	99.33	3,580	3,499	97.74	3,694	3,557	96.29
Taoyuan County	19,612	19,308	98.45	19,612	18,896	96.35	20,140	19,042	94.55
Hsinchu County	6,240	6,116	98.01	6,240	5,910	94.71	6,304	5,838	92.61
Miaoli County	4,905	4,821	98.29	4,905	4,665	95.11	5,193	4,848	93.36
Taichung County	14,448	14,234	98.52	14,448	14,017	97.02	15,290	14,432	94.39
Changhua County	11,810	11,579	98.04	11,810	11,502	97.39	11,980	11,417	95.30
Nantou County	4,154	4,101	98.72	4,154	3,944	94.94	4,397	4,059	92.31
Yunlin County	6,124	6,097	99.56	6,124	6,019	98.29	6,184	6,015	97.27
Chiayi County	4,385	4,358	99.38	4,385	4,296	97.97	4,523	4,350	96.18
Tainan County	8,426	8,251	97.92	8,426	8,206	97.39	8,634	8,343	96.63
Kaohsiung County	10,211	10,025	98.18	10,211	9,795	95.93	10,365	9,571	92.34
Pingtung County	6,585	6,520	99.01	6,585	6,370	96.74	6,777	6,264	92.43
Taitung County	1,868	1,852	99.14	1,868	1,813	97.06	1,829	1,772	96.88
Hualien County	2,637	2,629	99.70	2,637	2,539	96.28	2,708	2,503	92.43
Penghu County	751	735	97.87	751	743	98.93	781	759	97.18
Keelung City	2,733	2,708	99.09	2,733	2,655	97.15	2,871	2,694	93.83
Hsinchu City	5,093	4,991	98.00	5,093	4,853	95.29	4,975	4,546	91.38
Taichung City	9,335	9,211	98.67	9,335	9,056	97.01	9,977	9,498	95.20
Chiayi City	2,127	2,069	97.27	2,127	2,008	94.41	2,175	2,050	94.25
Tainan City	6,366	6,261	98.35	6,366	6,099	95.81	6,511	6,241	95.85
Kinmen County	1,043	1,029	98.66	1,043	1,020	97.79	985	948	96.24
Lienchiang County	97	97	100	97	96	98.97	106	102	96.23

Note 1. Source:National Immunization Information System.
2. Vaccination period:January 2007 to December 2009.
3. Data was calculated in January 2010.

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

Unit : %

Vaccines	OPV						Hepatitis B					
Birth cohort	2008			2007			2008			2008		
Dose	3rd dose			4th dose			2nd dose			3rd 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	198,486	190,400	95.93	204,749	192,815	94.17	198,486	194,707	98.10	198,486	191,555	96.51
Taipei City	21,264	20,586	96.81	22,368	21,215	94.85	21,264	20,849	98.05	21,264	20,627	97.00
Kaohsiung City	11,805	11,350	96.15	12,270	11,503	93.75	11,805	11,606	98.31	11,805	11,422	96.76
Taipei County	32,887	30,647	93.19	33,712	31,471	93.35	32,887	31,810	96.73	32,887	31,047	94.41
Yilan County	3,580	3,497	97.68	3,694	3,558	96.32	3,580	3,555	99.30	3,580	3,502	97.82
Taoyuan County	19,612	18,853	96.13	20,140	18,995	94.31	19,612	19,312	98.47	19,612	18,935	96.55
Hsinchu County	6,240	5,915	94.79	6,304	5,816	92.26	6,240	6,117	98.03	6,240	5,993	96.04
Miaoli County	4,905	4,661	95.03	5,193	4,838	93.16	4,905	4,821	98.29	4,905	4,709	96.00
Taichung County	14,448	13,996	96.87	15,290	14,408	94.23	14,448	14,239	98.55	14,448	14,066	97.36
Changhua County	11,810	11,502	97.39	11,980	11,415	95.28	11,810	11,680	98.90	11,810	11,556	97.85
Nantou County	4,154	3,921	94.39	4,397	4,043	91.95	4,154	4,064	97.83	4,154	3,973	95.64
Yunlin County	6,124	6,015	98.22	6,184	6,006	97.12	6,124	6,089	99.43	6,124	6,032	98.50
Chiayi County	4,385	4,296	97.97	4,523	4,350	96.18	4,385	4,346	99.11	4,385	4,305	98.18
Tainan County	8,426	8,196	97.27	8,634	8,332	96.50	8,426	8,251	97.92	8,426	8,204	97.37
Kaohsiung County	10,211	9,788	95.86	10,365	9,562	92.25	10,211	10,026	98.19	10,211	9,832	96.29
Pingtung County	6,585	6,352	96.46	6,777	6,242	92.11	6,585	6,454	98.01	6,585	6,392	97.07
Taitung County	1,868	1,813	97.06	1,829	1,772	96.88	1,868	1,843	98.66	1,868	1,816	97.22
Hualien County	2,637	2,538	96.25	2,708	2,501	92.36	2,637	2,620	99.36	2,637	2,566	97.31
Penghu County	751	739	98.40	781	755	96.67	751	744	99.07	751	742	98.80
Keelung City	2,733	2,652	97.04	2,871	2,686	93.56	2,733	2,714	99.30	2,733	2,661	97.37
Hsinchu City	5,093	4,841	95.05	4,975	4,535	91.16	5,093	4,973	97.64	5,093	4,859	95.41
Taichung City	9,335	9,034	96.78	9,977	9,475	94.97	9,335	9,182	98.36	9,335	9,090	97.38
Chiayi City	2,127	2,002	94.12	2,175	2,050	94.25	2,127	2,059	96.80	2,127	1,993	93.70
Tainan City	6,366	6,095	95.74	6,511	6,241	95.85	6,366	6,224	97.77	6,366	6,121	96.15
Kinmen County	1,043	1,015	97.32	985	944	95.84	1,043	1,033	99.04	1,043	1,016	97.41
Lienchiang County	97	96	98.97	106	102	96.23	97	96	98.97	97	96	98.97

Note 1. Source:National Immunization Information System.

2. Vaccination period:January 2007 to December 2009.

3. Data was calculated in January 2010.

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

Unit : %

Vaccines	Varicella			MMR			JE					
Birth cohort	July, 2007 - June, 2008			2007			2007			2006		
Dose	single dose			single dose			2nd dose			3rd 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	204,304	193,610	94.77	204,749	201,068	98.20	204,611	196,217	95.90	205,550	190,306	92.58
Taipei City	22,534	21,179	93.99	22,368	21,781	97.38	22,456	21,456	95.55	21,758	20,210	92.89
Kaohsiung City	12,131	11,540	95.13	12,270	12,042	98.14	12,243	11,701	95.57	12,389	11,306	91.26
Taipei County	33,672	31,248	92.80	33,712	32,909	97.62	33,476	31,703	94.70	33,942	29,925	88.17
Yilan County	3,635	3,526	97.00	3,694	3,645	98.67	3,692	3,584	97.07	3,865	3,652	94.49
Taoyuan County	20,119	19,168	95.27	20,140	19,819	98.41	20,079	19,261	95.93	20,086	18,811	93.65
Hsinchu County	6,359	5,975	93.96	6,304	6,213	98.56	6,243	5,998	96.08	6,038	5,649	93.56
Miaoli County	5,020	4,702	93.67	5,193	5,109	98.38	5,145	4,957	96.35	5,142	4,822	93.78
Taichung County	15,188	14,551	95.81	15,290	15,070	98.56	15,256	14,685	96.26	15,049	14,139	93.95
Changhua County	11,881	11,389	95.86	11,980	11,836	98.80	12,014	11,659	97.05	12,296	11,676	94.96
Nantou County	4,280	4,003	93.53	4,397	4,317	98.18	4,395	4,200	95.56	4,456	4,194	94.12
Yunlin County	6,257	6,054	96.76	6,184	6,134	99.19	6,199	6,049	97.58	6,376	6,087	95.47
Chiayi County	4,484	4,323	96.41	4,523	4,492	99.31	4,552	4,433	97.39	4,622	4,410	95.41
Tainan County	8,609	8,360	97.11	8,634	8,550	99.03	8,703	8,425	96.81	8,685	8,290	95.45
Kaohsiung County	10,460	9,797	93.66	10,365	10,137	97.80	10,396	9,898	95.21	10,609	9,699	91.42
Pingtung County	6,670	6,268	93.97	6,777	6,612	97.57	6,809	6,473	95.07	7,176	6,575	91.62
Taitung County	1,811	1,758	97.07	1,829	1,817	99.34	1,943	1,888	97.17	1,997	1,951	97.70
Hualien County	2,743	2,593	94.53	2,708	2,671	98.63	2,710	2,574	94.98	2,851	2,675	93.83
Penghu County	798	771	96.62	781	779	99.74	779	770	98.84	840	811	96.55
Keelung City	2,792	2,683	96.10	2,871	2,828	98.50	2,880	2,786	96.74	2,930	2,782	94.95
Hsinchu City	5,207	4,915	94.39	4,975	4,868	97.85	4,968	4,774	96.10	4,880	4,606	94.39
Taichung City	9,895	9,505	96.06	9,977	9,809	98.32	9,911	9,530	96.16	9,751	8,961	91.90
Chiayi City	2,193	2,017	91.97	2,175	2,141	98.44	2,158	2,087	96.71	2,262	2,159	95.45
Tainan City	6,447	6,203	96.22	6,511	6,412	98.48	6,509	6,277	96.44	6,602	6,042	91.52
Kinmen County	1,009	978	96.93	985	971	98.58	985	942	95.63	860	790	91.86
Lienchiang County	110	104	94.55	106	106	100	110	107	97.27	88	84	95.45

Note 1. Source:National Immunization Information System.

2. Vaccination period:January 2007 to December 2009 (JE: March 2008 to September 2009).

3. Data was calculated in January 2010 (JE: in October 2009).

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

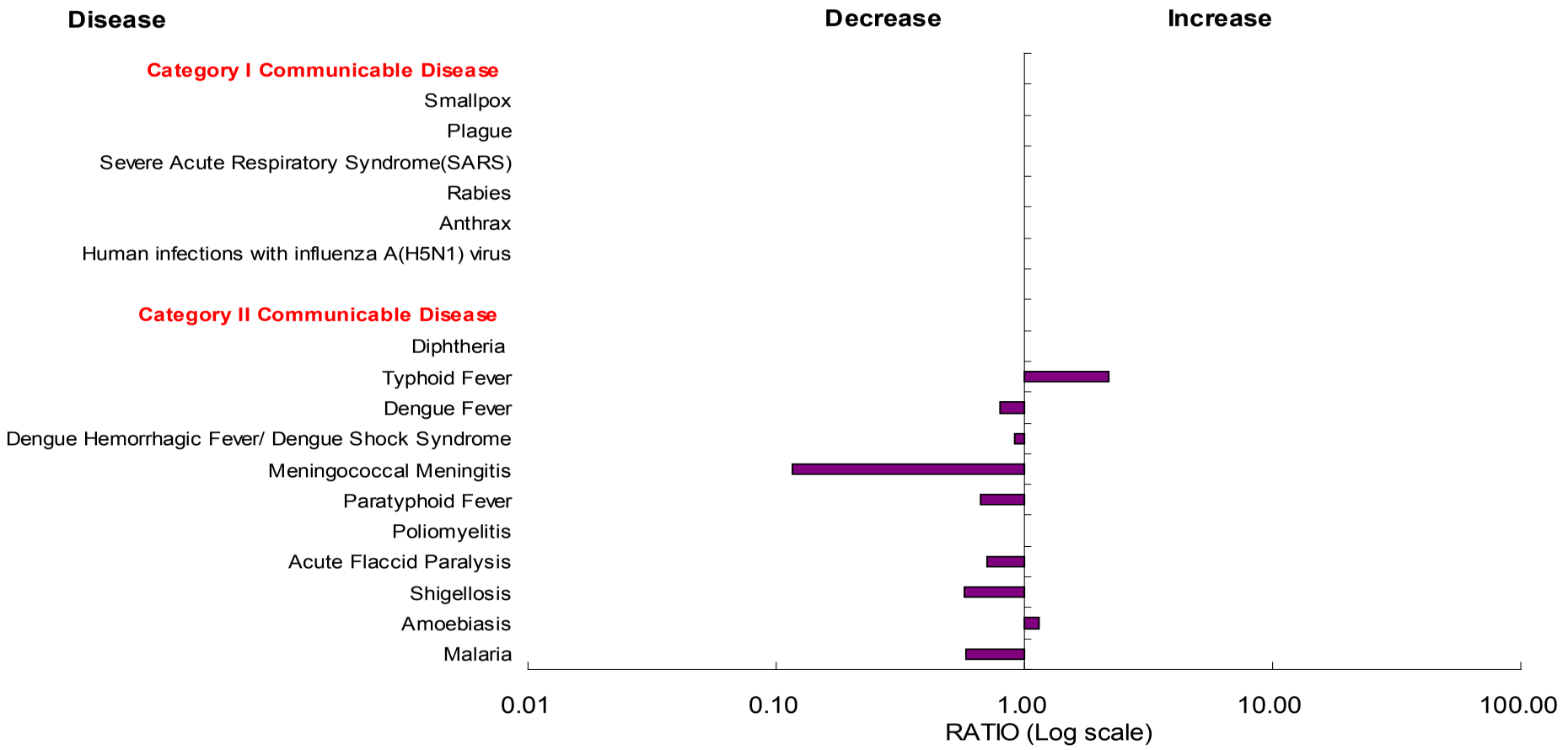
Unit : %

Vaccines	JE			MMR			Tdap			OPV		
Birth cohort	First grade of primary school (September, 2008 attend school)			First grade of primary school (September, 2008 attend school)			First grade of primary school (September, 2008 attend school)			First grade of primary school (September, 2008 attend school)		
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	247,440	244,192	98.69	249,941	247,765	99.13	248,560	240,586	96.79	245,670	239,214	97.37
Taipei City	24,847	24,617	99.07	22,728	22,464	98.84	24,826	24,430	98.40	22,733	22,475	98.87
Kaohsiung City	14,585	14,278	97.90	14,916	14,768	99.01	14,885	14,595	98.05	14,778	14,635	99.03
Taipei County	41,463	40,012	96.50	41,035	40,307	98.23	39,954	38,780	97.06	39,946	38,783	97.09
Yilan County	4,578	4,509	98.49	4,591	4,557	99.26	4,581	4,556	99.45	4,592	4,563	99.37
Taoyuan County	25,175	24,959	99.14	30,737	30,616	99.61	29,576	27,189	91.93	28,258	26,087	92.32
Hsinchu County	7,838	7,791	99.40	6,520	6,416	98.40	6,362	6,335	99.58	6,522	6,428	98.56
Miaoli County	6,186	6,177	99.85	6,155	6,139	99.74	6,657	6,219	93.42	6,175	6,145	99.51
Taichung County	18,004	17,982	99.88	18,553	18,546	99.96	17,406	15,497	89.03	18,099	16,271	89.90
Changhua County	14,699	14,674	99.83	14,690	14,655	99.76	14,692	14,646	99.69	14,709	14,664	99.69
Nantou County	5,620	5,595	99.56	5,564	5,538	99.53	5,588	5,545	99.23	5,554	5,534	99.64
Yunlin County	7,543	7,508	99.54	7,553	7,524	99.62	7,561	7,478	98.90	7,558	7,503	99.27
Chiayi County	5,420	5,404	99.70	5,408	5,374	99.37	5,408	5,374	99.37	5,407	5,370	99.32
Tainan County	10,376	10,374	99.98	10,379	10,378	99.99	9,813	9,803	99.90	10,171	10,167	99.96
Kaohsiung County	12,120	12,090	99.75	12,103	12,073	99.75	12,108	11,995	99.07	12,122	12,096	99.79
Pingtung County	8,744	8,623	98.62	8,896	8,741	98.26	8,740	8,486	97.09	8,829	8,688	98.40
Taitung County	2,459	2,459	100	2,182	2,180	99.91	2,407	2,395	99.50	2,205	2,200	99.77
Hualien County	3,431	3,431	100	3,437	3,430	99.80	3,420	3,408	99.65	3,444	3,437	99.80
Penghu County	839	837	99.76	832	831	99.88	836	834	99.76	832	831	99.88
Keelung City	3,670	3,623	98.72	3,659	3,619	98.91	3,669	3,592	97.90	3,690	3,648	98.86
Hsinchu City	4,941	4,772	96.58	5,221	5,110	97.87	5,259	5,161	98.14	5,259	5,161	98.14
Taichung City	12,987	12,750	98.18	13,035	12,762	97.91	13,022	12,728	97.74	13,035	12,802	98.21
Chiayi City	3,395	3,384	99.68	3,249	3,246	99.91	3,244	3,243	99.97	3,249	3,240	99.72
Tainan City	7,789	7,626	97.91	7,791	7,787	99.95	7,837	7,598	96.95	7,794	7,787	99.91
Kinmen County	647	633	97.84	623	620	99.52	625	615	98.40	625	615	98.40
Lienchiang County	84	84	100	84	84	100	84	84	100	84	84	100

Note 1. Source:National Immunization Information System.

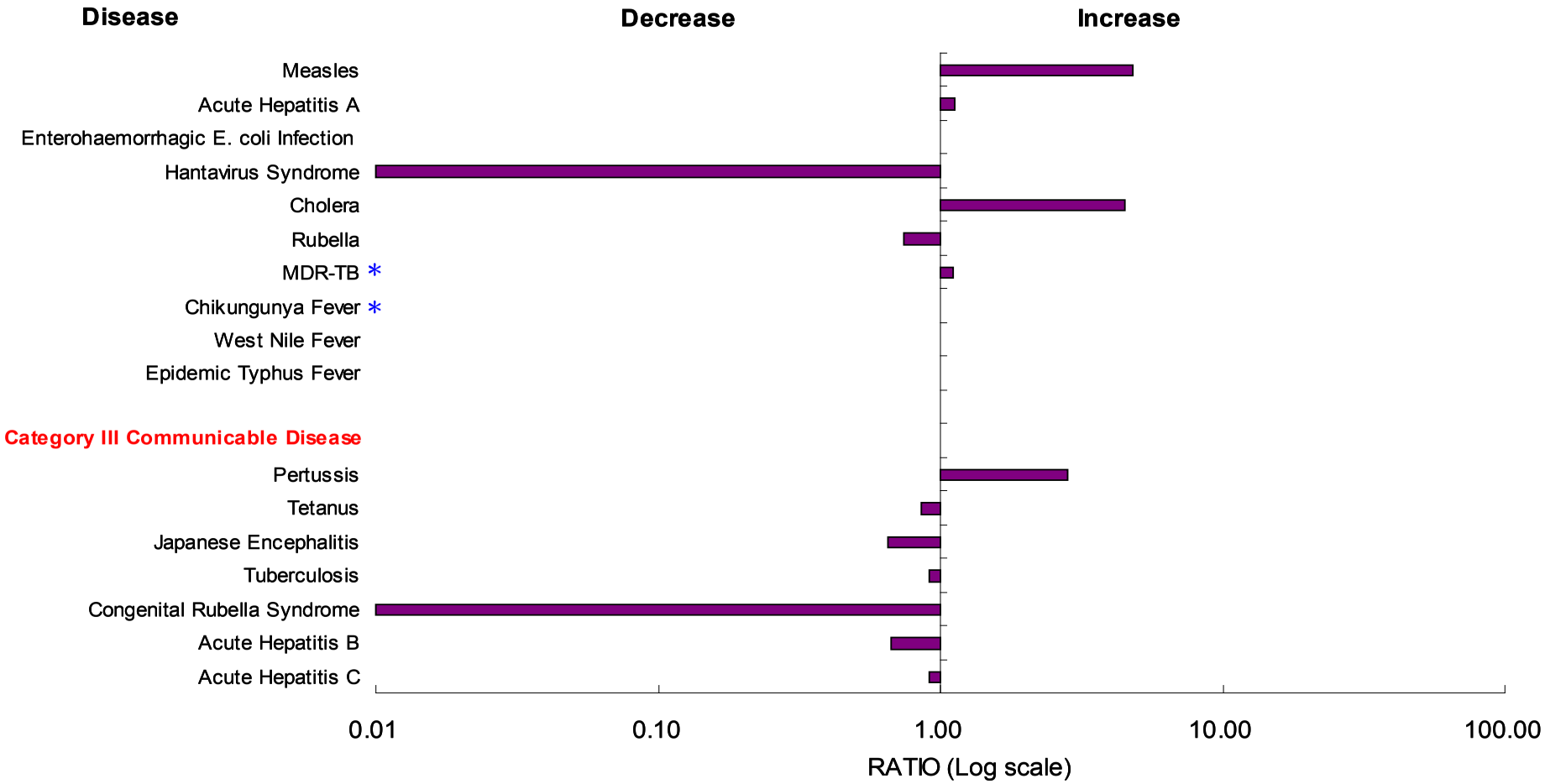
2. Vaccination period:September 2008 to June 2009 (JE: March 2009 to September 2009).

3. Data was calculated in July 2009 (JE: in October 2009).



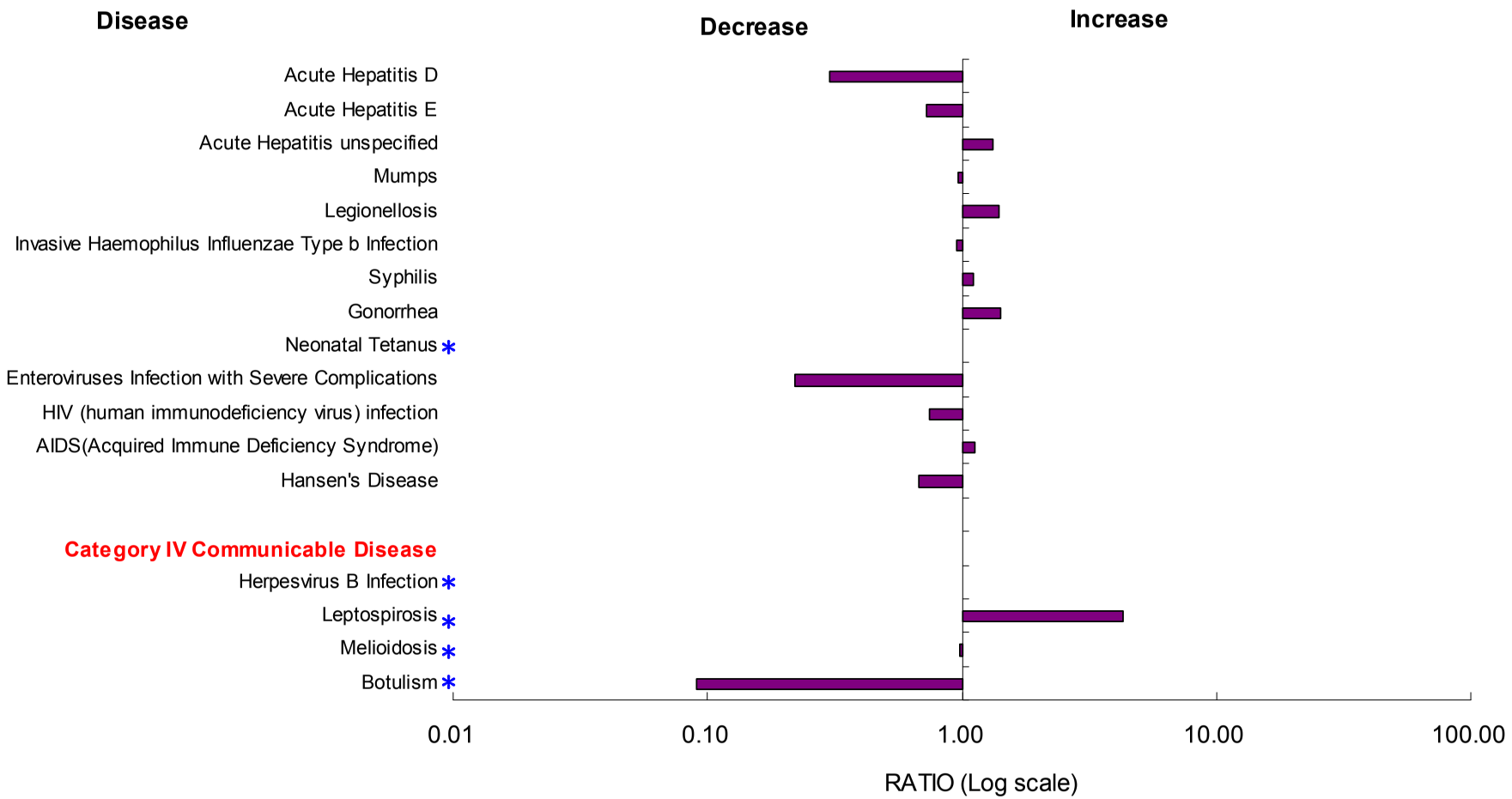
Note：1. Analysis unit:confirmed cases and its onset date.
2. Ratio = 2009 cases / mesns of 2006-2008.
3. The default value is 100 when denominator is zero and numerator is not zero. The default value is 0.01 when denominator is not zero and numerator is zero.

Figure 1　Comparison of 2009 total confirmed cases of notifiable diseases with historical data



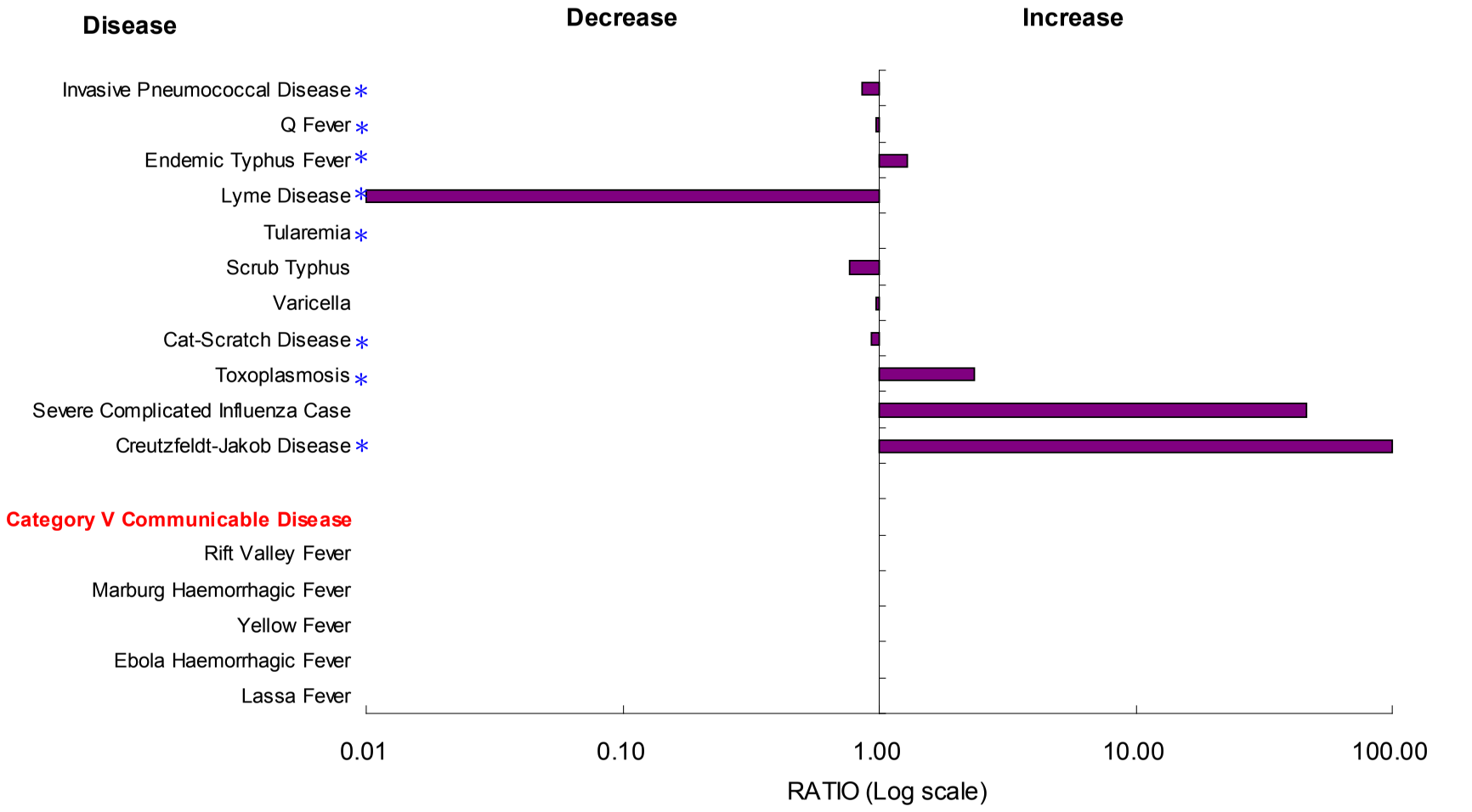
Note：1. Analysis unit:confirmed cases and its onset date.
2. Ratio = 2009 cases / mesns of 2006-2008.
3. The default value is 100 when denominator is zero and numerator is not zero. The default value is 0.01 when denominator is not zero and numerator is zero.
4. For tetanus, varicella and mumps : based on reported cases .
5. ＊The statistics of MDR-TB and Chikungunya Fever were validated since October 15, 2007, hence the results were year 2009 compare with year 2008.

Figure 1 (Continued) Comparison of 2009 total confirmed cases of notifiable diseases with historical data



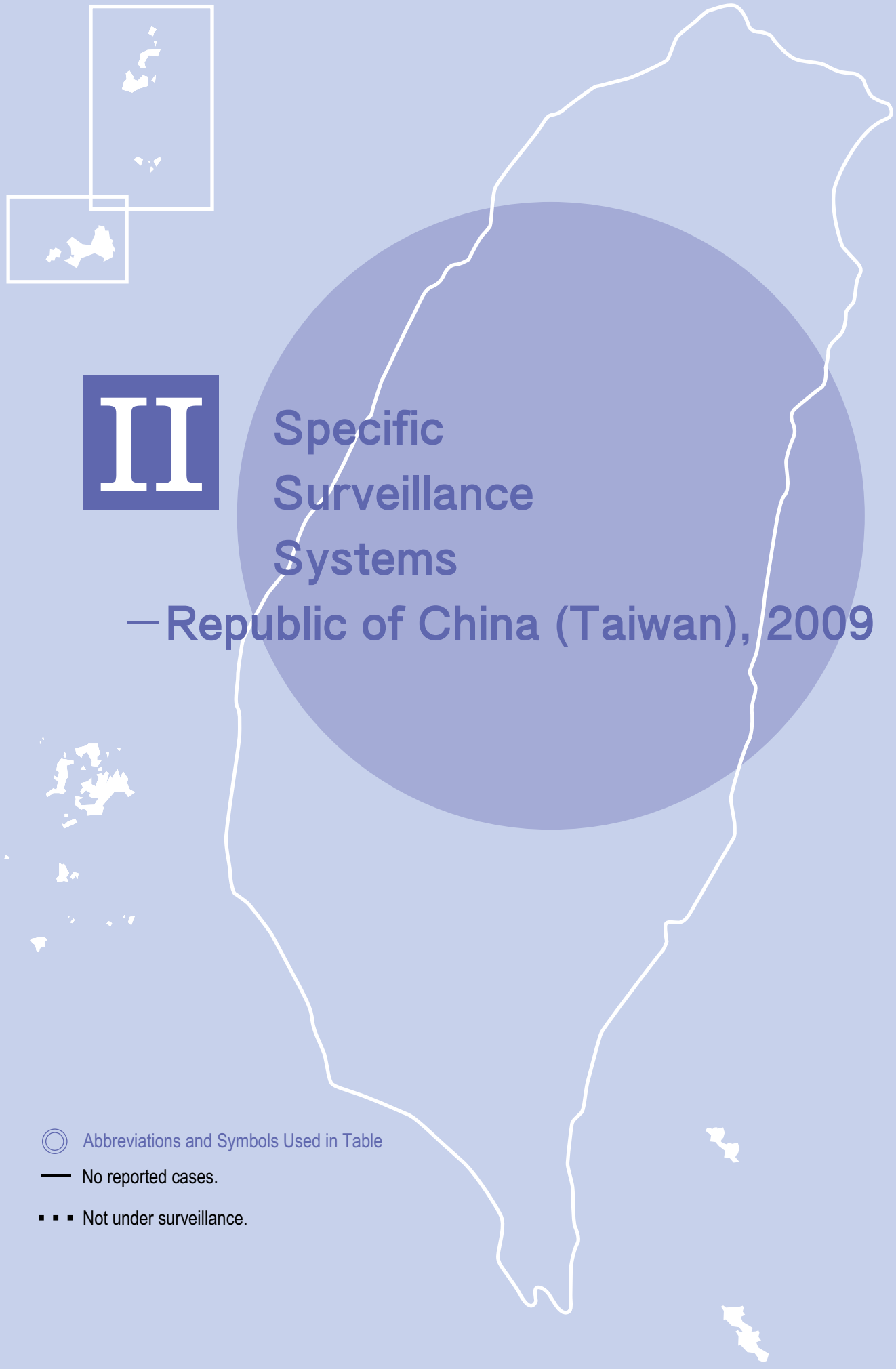
Note : 1. Analysis unit:confirmed cases and its onset date.
2. Ratio = 2009 cases / mesns of 2006-2008.
3. The default value is 100 when denominator is zero and numerator is not zero. The default value is 0.01 when denominator is not zero and numerator is zero.
4. For tetanus, varicella and mumps : based on reported cases .
5. For syphilis and gonorrhea: based on the diagnosis date.
6. The numbers of HIV infection and AIDS were estimated by the date of diagnosis, and foreign nationality was excluded.
7. * The statistics of Neonatal Tetanus, Herpesvirus B Infection, Leptospirosis, Melioidosis and Botulism were validated since October 15, 2007, hence the results were year 2009 compare with year 2008.

Figure 1. (Continued) Comparison of 2009 total confirmed cases of notifiable diseases with historical data



Note：1. Analysis unit:confirmed cases and its onset date.
2. Ratio = 2009 cases / mesns of 2006-2008.
3. The default value is 100 when denominator is zero and numerator is not zero. The default value is 0.01 when denominator is not zero and numerator is zero.
4. For tetanus, varicella and mumps : based on reported cases .
5. * The statistics of Invasive Pneumococcal Disease, Q Fever, Endemic Typhus Fever, Lyme Disease,Tularemia, Cat-Scratch Disease, Toxoplasmosis and Creutzfeldt-Jakob Disease were validated since October 15, 2007, hence the results were year 2009 compare with year 2008.

Figure 1 (Continued) Comparison of 2009 total confirmed cases of notifiable diseases with historical data



II Specific Surveillance Systems —Republic of China (Taiwan), 2009

◎ Abbreviations and Symbols Used in Table

— No reported cases.

▪ ▪ ▪ Not under surveillance.

Nosocomial Infections Surveillance System

I. Preface

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

II. Objectives

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

III. Reporting methods, data analysis, and feedback

TNIS adopts voluntary reporting, and each hospital may provide their data either through web-based entry or convey their data electronically through interchange platform. The web-based report mechanism mainly serves for the hospitals which lack HAI surveillance system of their own. Hospital staff enters the HAI data on the TNIS website directly. The other mechanism, conveying surveillance data electronically through interchange platform, serves for the hospitals which had built their own HAI surveillance system. However, to enable interoperability between hospital information systems (HIS) and TNIS system, infection control practitioner has to work on vocabularies mapping from local to standard codes and hospital information technology staff has to bridge the connection between the two systems and make the electronic data pack in a standard format according to the working instruction issued by Taiwan

CDC. Through this mechanism, surveillance data could be routinely transferred from hospital information systems to the TNIS system automatically. This can save the hospital staff a lot of time because they would not need to repeatedly enter the data to both of hospital surveillance system and TNIS system. At present, more than 300 hospitals are reporting during 2009. Hospitals may use TNIS system to manage HAI cases and generate individual hospital reports. Also, Taiwan CDC periodically feedback hospitals with analysis report as a reference for inter- and intra-hospital comparisons, hope to facilitate hospitals to improve their quality in controlling HAIs and to safeguard the wellbeing of healthcare workers and the general public.

IV. Healthcare-associated infection surveillance data analysis content

1. TNIS hospitals in the intensive care units (ICUs) of medical centers and regional hospitals contributing data used in this report in 2009.
2. Distribution of HAI rates by type of location in the ICUs of medical centers and regional hospitals in 2009.
3. Distribution of device-associated infection rates in the ICUs of medical centers and regional hospitals in 2009.
4. Distribution of major sites of HAI in ICU patients from medical centers and regional hospitals in 2009.
5. Common pathogens of HAI for patients in the ICUs of medical centers in 2009.
6. Common pathogens of HAI for patients in the ICUs of regional hospitals in 2009.
7. Antimicrobial resistance proportions of selected pathogens of HAI in the ICUs of medical centers and regional hospitals in 2009.

V. Surveillance method and main results

In order to evaluate the general view of rates of HAIs and device-associated infections in Taiwan, the data source of rate distributions of HAIs and of device-associated infections in ICUs of medical centers and regional hospitals in 2009 were adopted by paper-based reports provided by all medical centers and regional hospitals, regardless it was in and not in TNIS system. Otherwise, all the analytical results in this report besides the aforesaid statement were derived from TNIS database (Table 11). This report should be considered provisional. When more information is available in TNIS system, Taiwan CDC will provide the updated analysis report of comparison and trend of years on its website as a reference for the general public.

The distributions of HAI rate ((number of HAIs/number of patient-days)×1000‰) in ICUs of medical centers and regional hospitals are shown in Table 12. There were 830,405 patient-days with 9,359 person-times of HAI events occurred in the ICUs of 21 medical centers, the rate of infections was 11.3‰. However, in the ICUs of the 78 regional hospitals, there were 914,132 patient-days with 7,637 person-times of HAI events occurred, the rate of infections was 8.4‰. The HAI rates of ICUs were higher in medical centers than those in regional hospitals by corresponding types of ICU. The infection rate was

highest in medical ICU for medical centers (13.9‰) and highest in surgical ICU for regional hospitals (10.2‰). 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 rates of catheter-associated urinary tract infections (CAUTI) was 5.3‰ in medical centers and 3.6‰ in regional hospitals, and the central line-associated bloodstream infections (CLABSI) were 4.6‰ 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 rate of infection of ventilator-associated pneumonia (VAP) in regional hospitals is higher than that in medical centers, which are 1.2‰ and 1.1‰ respectively.

There were 17 medical centers and 66 regional hospitals participated in reporting HAI cases to TNIS system in 2009. The distribution of site-specific HAIs in ICUs is shown in Table 13, with the urinary tract infections topped the list in both medical centers and regional hospitals (45.3% and 38.1% respectively), followed by bloodstream infections (31.1% and 28.0% respectively), and pneumonia (10.9% and 22.2% respectively). The common pathogens for HAIs in ICUs are shown in Table 14 and Table 15, the top three pathogens in the ICUs were *Candida* species, *Acinetobacter baumannii*, and *Pseudomonas aeruginosa* in medical centers; whereas there were *A. baumannii* , *Candida* species, and *Escherichia coli* 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 *S. aureus* isolates those were resistant to methicillin (MRSA) is 77.4%, the proportion of *A. baumannii* isolates those were resistant to carbapenem (CRAB) is 59.7%, the proportion of *P. aeruginosa* isolates those were resistant to carbapenem (CRPA) is 14.9%, the proportion of *enterococci* isolates those were resistant to vancomycin (VRE) is 21.6%, and the proportion of *Klebsiella pneumoniae* isolates those were resistant to carbapenem (CRKP) is 5.8%. Meanwhile, the antimicrobial resistance proportions of selected pathogens isolated from patients acquired HAIs in the ICUs of regional hospitals were 77.9%, 69.6%, 16.7%, 16.0% and 5.8% for MRSA, CRAB, CRPA, VRE and CRKP, respectively.

VI. 2009 Data analysis of HAI in the ICUs of medical centers and regional hospitals

Table11. TNIS hospitals in the ICUs of medical centers and regional hospitals contributing data used in this report, 2009

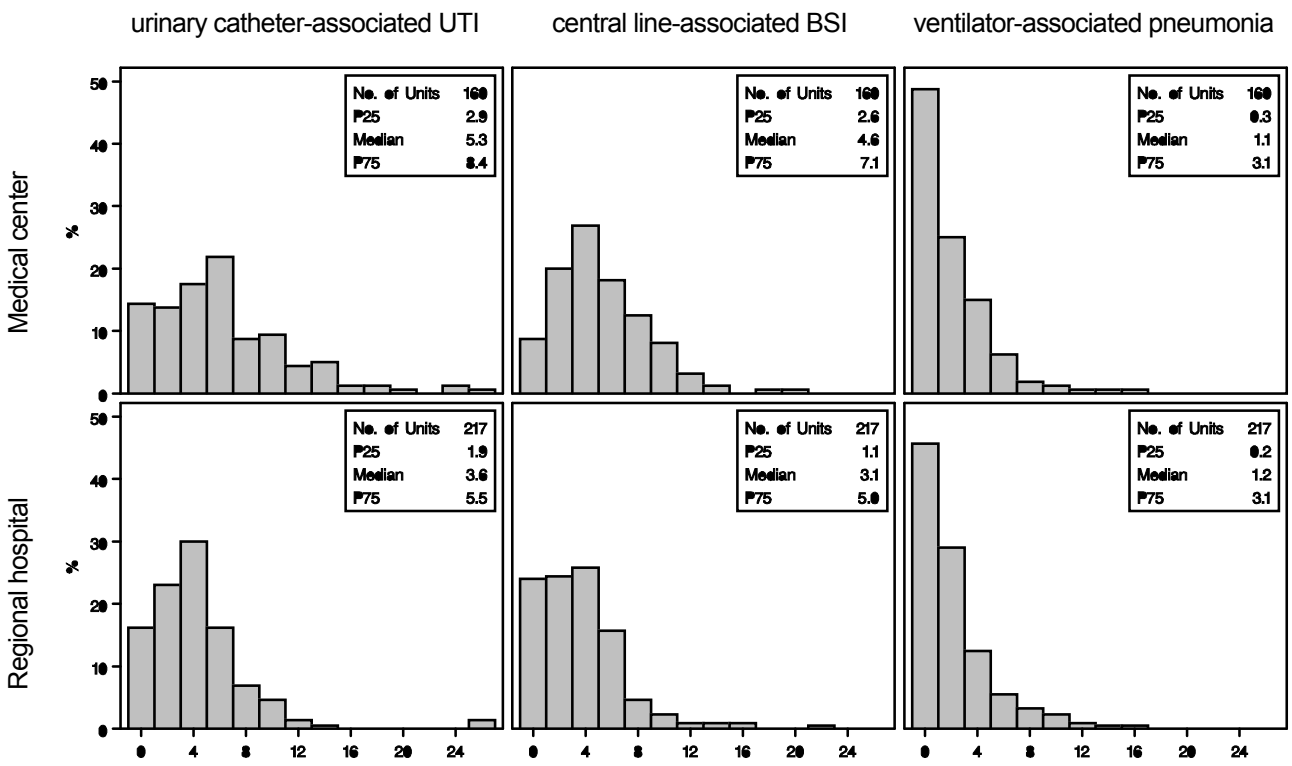
Hospital level	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs	No. of hospitals	No. of HAIs
Medical center	17	1,818	16	1,801	15	1,787	16	1,762
Regional hospital	58	1,412	57	1,315	60	1,244	60	1,254

Note: Data updated to 2010/05/01

Table 12. Distribution of healthcare-associated infection rates by type of locations in the ICUs of medical centers and regional hospitals, 2009

Hospital level	Type of locations	No. of units	No. of HAIs	Patient -days	HAI Rate*	Percentile		
						25th	50th	75th
Medical center	Medical ICU	54	3,518	253,344	13.9	10.8	13.8	16.9
	Surgical ICU	73	3,600	278,724	12.9	9.0	11.9	16.0
	Cardiology ICU	15	668	65,668	10.2	5.9	10.4	11.9
	Pediatric ICU	46	800	170,120	4.7	2.3	4.2	7.2
	Medical/surgical ICU	16	773	62,549	12.4	9.2	12.0	20.0
	Total	204	9,359	830,405	11.3	7.0	10.8	14.8
Regional hospital	Medical ICU	69	2,481	294,866	8.4	5.6	7.5	11.2
	Surgical ICU	47	1,867	183,063	10.2	6.7	9.8	12.7
	Cardiology ICU	14	237	36,849	6.4	3.6	4.9	8.4
	Pediatric ICU	61	128	65,593	2.0	0.0	0.7	2.9
	Medical/surgical ICU	81	2,924	333,761	8.8	6.2	8.1	10.2
	Total	272	7,637	914,132	8.4	3.7	7.1	10.4

Note:1.Data sources were adopted by paper-based reports provided by medical centers and regional hospitals;
2. *HAI rate= (number of HAIs/number of patient-days) ×1000‰



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

Figure 2. Distribution of device-associated infection rates in the ICUs of medical centers and regional hospitals, 2009

Table13. Distribution of major types of healthcare-associated infection in the ICU patients from medical centers and regional hospitals, 2009

Types of infection	Medical center		Regional hospital	
	No.	%	No.	%
Urinary tract	3,245	45.3	1,993	38.1
Bloodstream	2,230	31.1	1,461	28.0
Pneumonia	782	10.9	1,162	22.2
Surgical site	383	5.3	209	4.0
Other	528	7.4	400	7.7
Total	7,168	100.0	5,225	100.0

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

Table 14. Common pathogens of healthcare-associated infections in the ICUs of medical centers, 2009

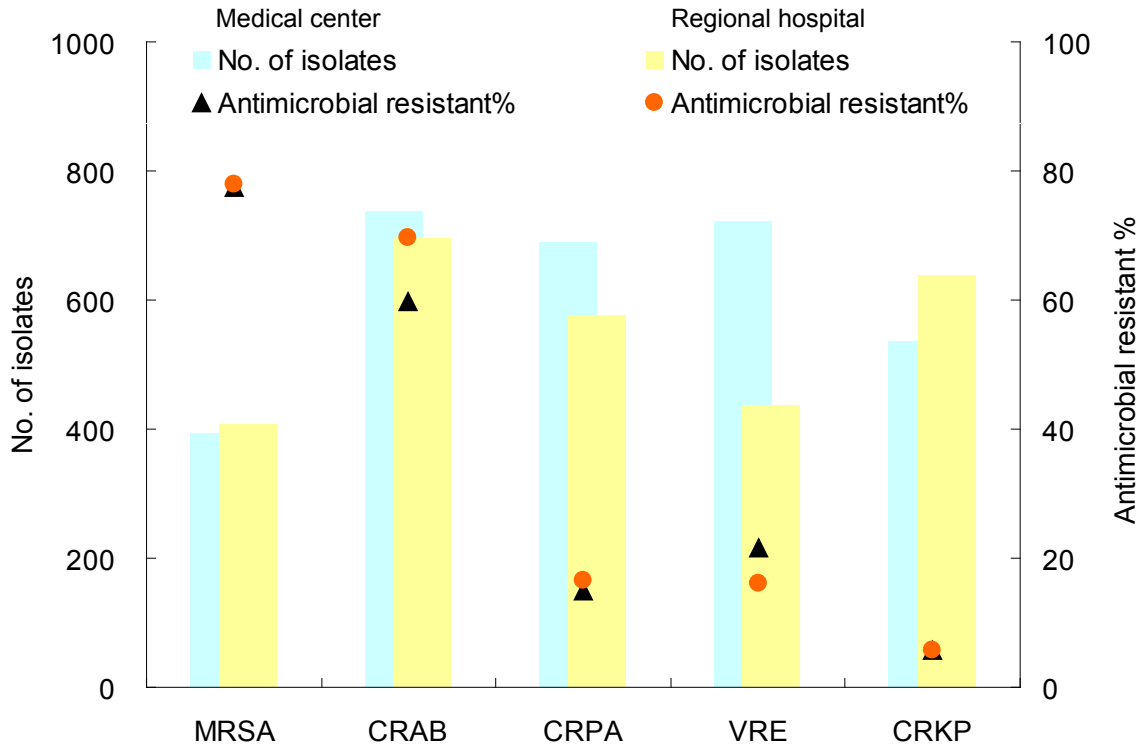
pathogens	Total		Types of Infection									
			Urinary tract		Bloodstream		Pneumonia		Surgical site		Other	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
Candida species	1		1		2		9		6		8	
C. albicans		835		627		152		9		25		22
Other *Candida* spp. or NOS		463		311		134		3		6		9
Acinetobacter baumannii	2	795	6	205	1	339	2	150	8	28	3	73
Pseudomonas aeruginosa	3	764	4	303	7	159	1	164	1	77	4	61
Escherichia coli	4	761	2	541	8	108	6	30	2	51	7	31
Klebsiella pneumoniae	5	599	5	242	4	194	3	96	4	44	10	23
Yeast-like	6	481	3	408	13	28	11	8	11	13	9	24
Staphylococcus aureus	7	456	10	35	3	221	4	77	3	49	2	74
Enterobacter species	8		7		5		7		5		6	
E. cloacae		346		103		163		20		33		27
Other *Enterobacter* spp. or NOS		69		18		31		9		6		5
Coagulase negative staphylococci	9	296	12	23	6	165	26	2	7	29	1	77
Stenotrophomonas maltophilia	10	162	14	16	9	93	5	38	17	6	12	9
Others	-	2,241	-	828	-	735	-	197	-	259	-	222
Total	-	8,268	-	3,660	-	2,522	-	803	-	626	-	657

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, 2009

pathogens	Total		Types of Infection									
			Urinary tract		Bloodstream		Pneumonia		Surgical site		Other	
	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.	Rank	No.
Acinetobacter baumannii	1	756	5	155	1	201	1	298	4	27	2	75
Candida species	2		2		2		10		7		6	
C. albicans		457		282		106		26		17		26
Other Candida spp. or NOS		205		115		74		5		1		10
Escherichia coli	3	644	1	441	8	95	7	48	1	44	8	16
Pseudomonas aeruginosa	4	630	4	218	6	107	2	217	2	35	3	53
Klebsiella pneumoniae	5	622	3	222	5	161	3	180	5	23	5	36
Staphylococcus aureus	6	450	10	22	3	171	4	155	6	22	1	80
Enterobacter species	7		8		7		6		3		7	
E. cloacae		208		49		80		44		16		19
Other *Enterobacter spp.* or NOS		58		13		17		13		12		3
Coagulase negative staphylococci	8	249	12	18	4	171	24	3	8	13	4	44
Yeast-like	9	210	6	153	11	41	23	3	16	3	10	10
Stenotrophomonas maltophilia	10	140	20	4	9	61	5	66	14	3	12	6
Others	-	1,307	-	486	-	389	-	240	-	97	-	95
Total	-	5,936	-	2,178	-	1,674	-	1,298	-	313	-	473

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



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

Figure 3. Antimicrobial resistances of selected pathogens of healthcare-associated infections in the ICUs of medical centers and regional hospitals, 2009

Sentinel Surveillance System

I. Preface

The Sentinel Surveillance System established by the Health Inspection and Quarantine Institute in 1989, to make up for the weakness of low reporting rate and low efficiency of “notifiable communicable diseases” and “reportable communicable diseases,” has been implemented since 1990. To select sentinel physicians, health bureaus in each city and county first recommended local representative physicians with a high number of outpatient cases. Various regional surveillance centers then sent staff to visit these physicians to understand whether they were willing to participate in this system before suitable physicians were selected. In 2009, there were 800 sentinel physicians selected in about 87% of cities and counties islandwide.

II. Objectives

1. To discover early possible outbreaks of communicable diseases in the community.
2. To evaluate the impact of health risks of diseases under surveillance.
3. To evaluate the effects of communicable diseases prevention programs.
4. To establish local epidemiological data in Taiwan.
5. To establish epidemic trends and predictions of diseases.

III. Diseases under surveillance in past years

1990	Varicella, mumps, measles, rubella.
1991 1992	Varicella, mumps, bacterial gastroenteritis.
1993 1994	Varicella, mumps, bacterial gastroenteritis, pertussis.
1995	Varicella, mumps, measles, rubella, acute flaccid paralysis, diarrhea.
1996 1997 1998	Varicella, mumps, measles, rubella, acute flaccid paralysis, diarrhea, acute respiratory infection.
1999	Varicella, diarrhea, acute respiratory infection, influenza-like illness, hand-foot- mouth disease or herpangina.
2000 2001	Varicella, invasive gastroenteritis, noninvasive gastroenteritis, influenza-like illness, hand-foot-mouth disease or herpangina.
2002	Varicella, diarrhea (initiating since the 27th week, up to the 26th week: invasive gastroenteritis, noninvasive gastroenteritis), influenza-like illness, hand-foot-mouth disease or herpangina, fever.
2003 2004	Varicella, diarrhea, influenza-like illness, hand-foot-mouth disease or herpangina, fever.
2005 2006	Varicella, diarrhea, influenza-like illness, hand-foot-mouth disease or herpangina.
2007 2008 2009	Diarrhea, influenza-like illness, hand-foot-mouth disease or herpangina.

IV. Reporting methods and data analysis

Sentinel physicians provide the number of cases for each reportable diseases once every week through the Internet, telephone, or facsimile to various branch offices of Taiwan CDC. Taiwan CDC staff then type the data into the Sentinel Physician Information Management System.

Taiwan CDC analyzes the data of the Sentinel Surveillance System, and produces and posts statistical figures on the website. The analytical results are then published in the "Sentinel Surveillance Weekly Report", which will be delivered to sentinel physicians for their reference.

V. Analysis of notifiable diseases data

1. Influenza-like illness (ILI)

■ Case definition:

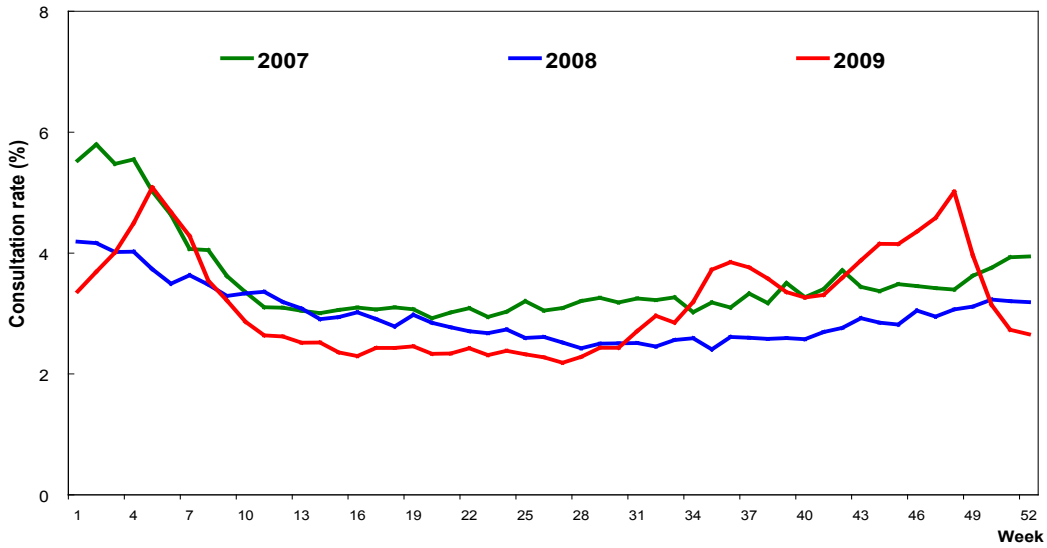
Influenza-like illness (ILI) cases should meet the following three criteria:

(1) Sudden onset of the disease, fever (ear temperature>=38℃) and respiratory tract symptoms.

(2) Muscular pain or headache or extreme tiredness.

(3) It is necessary to exclude simple rhinorrhea, tonsillitis, and bronchitis.

■ Epidemic analysis: The consultation rate for influenza-like illness (ILI) reported by sentinel physicians each week in 2009 ranged from 2.2% to 5.1%. From the 34th to 49th week, the Influenza-like illness (ILI) epidemic was getting serious. In general, the epidemic in 2009 was more serious than that in 2008. 【Note: consultation rate of influenza-like illness = (person-visit of ILI/total person-visit) *100%】



【Note: consultation rate of influenza-like illness = person-visit of ILI visits/ total person-visit *100%】

Figure 4 Trends of influenza-like illnesses reported by sentinel physicians weekly, 2007-2009

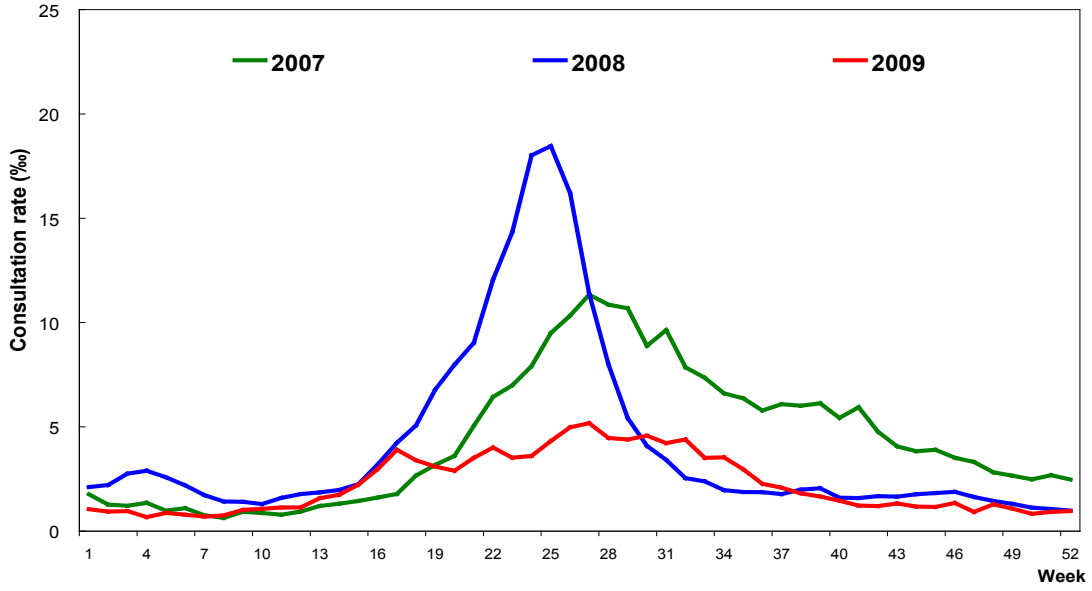
2. Enterovirus infections

(1) Enterovirus infection usually does not cause any symptoms or causes only some mild flu-like symptoms. Occasionally, it can cause some special clinical manifestation such as hand-foot-mouth disease, herpangina, aseptic meningitis, viral encephalitis, myocarditis, polio-like syndrome, acute hemorrhagic conjunctivitis, and so on. Hand-foot-mouth disease and herpangina have been included into the list of reportable diseases of the Sentinel Surveillance System.

(2) Definition of hand-foot-mouth disease cases: development of blisters or rashes in the mouth, palms, soles and/or on knees and buttocks.

(3) Herpangina case definition: development of fever and blisters or ulcers of the pharynx.

(4) Epidemic analysis: The enterovirus epidemic period in Taiwan is from April to October each year. There are usually two epidemic peaks, one in May to June and the other in September to October. The consultation rate of enterovirus cases reported by sentinel physicians each week in 2009 varied from 0.7‰ to 5.2‰, and the epidemic peaked in late June. Unlike in the past few years, the second epidemic peak did not appear in October as expected that the clinical manifesttation of most enterovirus cases was herpangina. The epidemic of enterovirus infection was not as serious as that in the past years. [Note: consultation rate of enterovirus infections = (person-visit of enterovirus infection/total person-visit) *1000‰].



【Note: Consultation rate of enterovirus infections = person-visit of enterovirus infections / total person-visit *1000‰.】

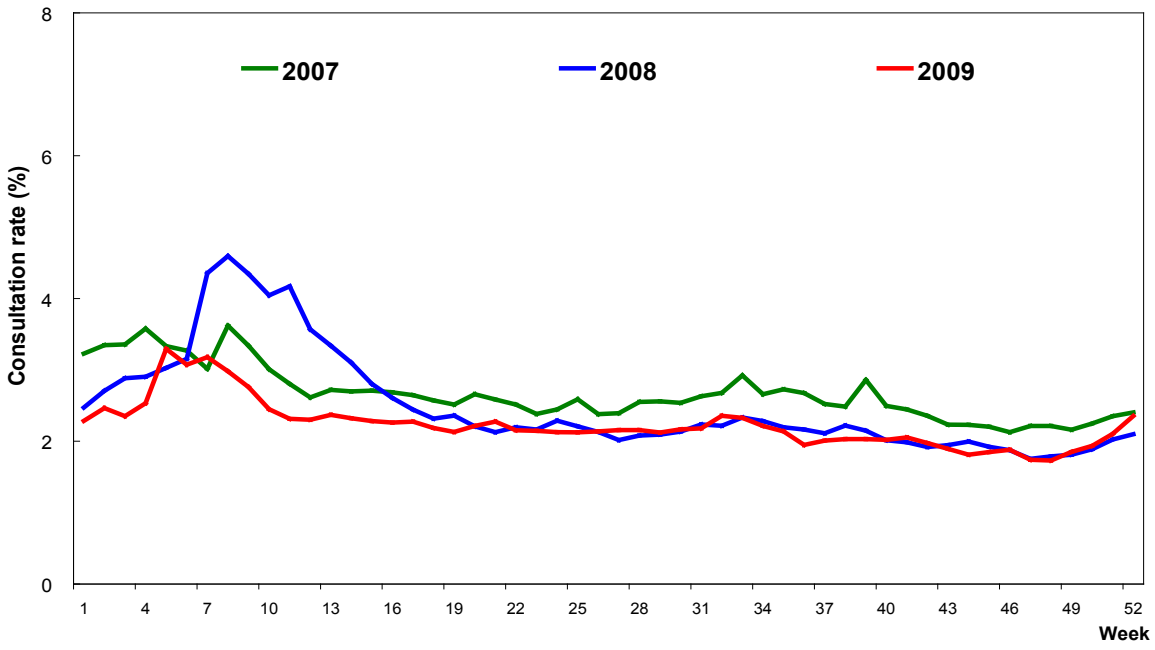
Figure 5 Trends of Enterovirus Infections reported by sentinel physicians weekly, 2007-2009

3. Diarrhea

- Case definition:

  More than three times of diarrhea per day and any one of the following symptoms: 1. vomiting, 2. fever, 3. in mucous form or with blood, and 4. watery diarrhea.

- Epidemic analysis: The consultation rate of diarrhea cases reported by sentinel physiciang each week in 2009 fluctuated between 1.7% and 3.3%. The diarrhea epidemic peak occurred in spring, and the epidemic trend was similar to that in the past years. [Note: consultation rate of diarrhea = (person-visit of diarrhea /total person-visit) *100%].



【Note: Consultation rate of diarrhea = person-visit of diarrhea / total person-visit *100%.】

Figure 6 Trends of diarrhea reported by sentinel physicians weekly, 2007-2009

School-based Surveillance System

I. Preface

The school-based surveillance system aims to monitor the communicable diseases that are prevalent among school children. Elementary school students in such a crowded environment do not have strong immunity, and any communicable disease can easily spread out among them. Taiwan CDC has launched a trial school-based surveillance project in February 2001. Till now the number of elementary schools under this system has increased from 20 to 602. The long-term trends of communicable diseases common for school students have been found for early detection of pathogens and prevention of communicable diseases and epidemics.

II. Objectives

The school-based surveillance system allows us to know the epidemic trends at school, and predict any possible epidemic outbreaks. By early surveillance of communicable diseases and epidemics, appropriate epidemic prevention measures can be adopted timely to prevent the spread out of communicable diseases on campus. Together with the school health education, this system aims to prevent and control communicable diseases and protect school students' health. The school-based Surveillance System is a simple, flexible, specific, and sensitive system which can identify and monitor communicable diseases. It can not only facilitate the surveillance and reporting of any communicable diseases cases, but also systematically collect relevant data for further analysis and interpretation of epidemic situation. Based on the analytical results, epidemic prevention and execution measures can be evaluated and reviewed. It is therefore necessary to continue the surveillance of campus communicable diseases so as to prevent transmission of the diseases to family or community, causing more serious epidemics.

The school-based Surveillance System uses diverse approaches to monitor communicable diseases, thus assuring the completeness of the whole surveillance of communicable diseases.

III. Diseases under surveillance

Communicable diseases under surveillance include Influenza-like illness (ILI), hand-foot-mouth disease or herpangina, diarrhea, fever, acute hemorrhagic conjunctivitis, other special communicable diseases, and so on.

IV. Reporting method and data analysis feedback

Reporting is voluntary under this surveillance system. School nurses report any cases of communicable diseases directly to the system through the Internet on a weekly basis, by every Tuesday. Taiwan CDC staff then oversee the reporting, calculate the data uploading rate of each school, and determine whether there are epidemics of other communicable diseases. The data are analyzed also on a weekly basis, produced in statistical figures, and posted on the website. The analytical results are then published in the "School-based Surveillance Weekly Report," which will be delivered to reporting schools and relevant health and education agencies.

V. Analysis of reportable diseases

1. Influenza-like illness

- Case definition:

  Acute respiratory tract infection and the following symptoms:

  (1) Sudden onset of the disease, fever (ear temperature>=38°C) and respiratory tract symptoms.

  (2) Muscular pain or headache or extreme tiredness.

- Epidemic analysis:

  (1) According to the statistical data of the School-based Surveillance System, the morbidity of influenza-like illness in 2009 was in between 0.13% and 1.20%. The epidemic significantly worsened from the 38th week to 50th week, and was generally more serious as compared with the epidemics in 2007 and 2008.

  (2) Similar epidemic trend to that obtained by the Sentinel Surveillance System was observed.

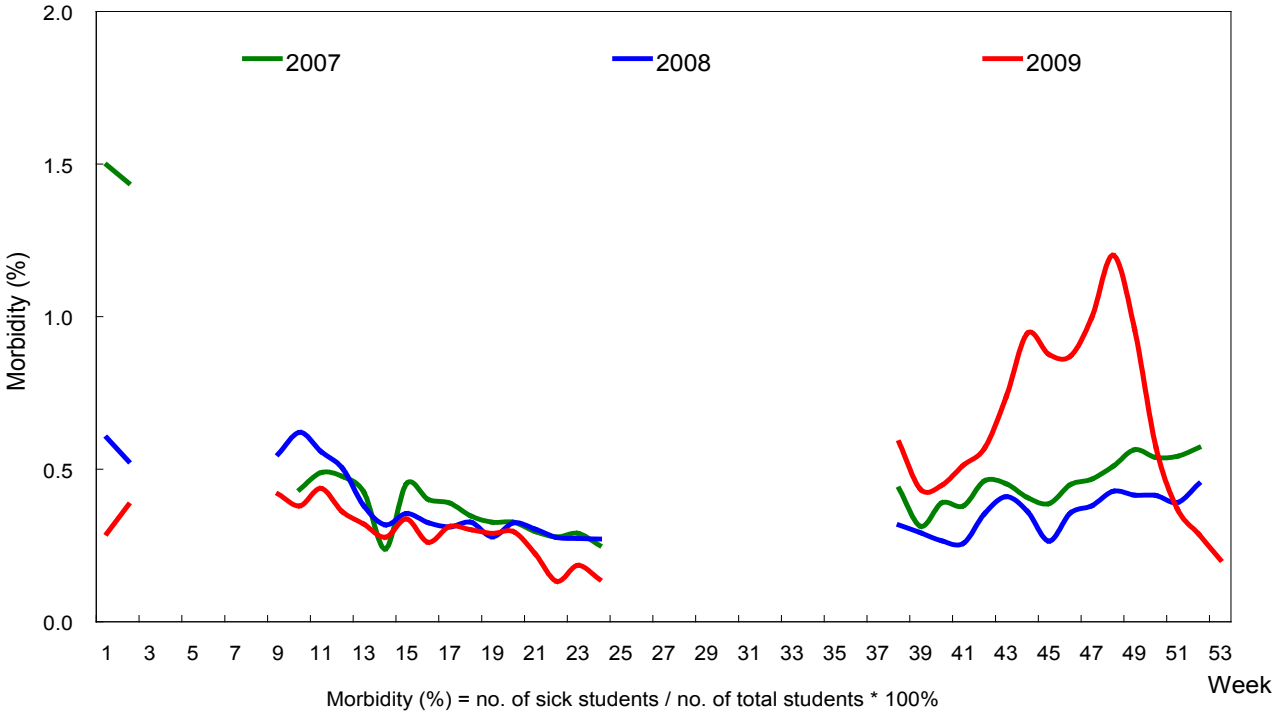


Figure 7 ILI morbidity reported by the School-based Surveillance System, 2007-2009

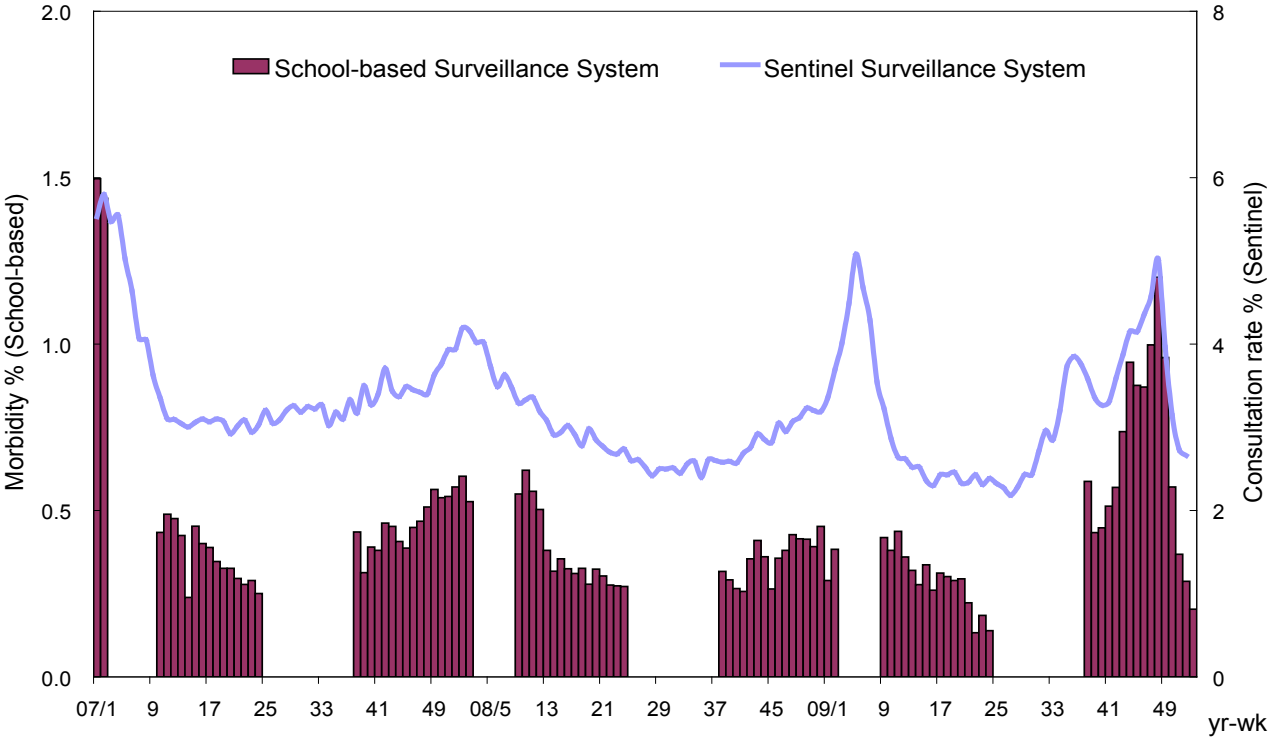


Figure 8 Comparison of ILI morbidity between School-based Surveillance System and Sentinel Surveillance System

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

■ Case definition:

(1)Definition of hand-foot-mouth disease cases: development of blisters or rashes in the mouth, palms, soles and/or on knees and buttocks.

(2)Herpangina case definition: development of fever and blisters or ulcers of the pharynx.

■ Epidemic analysis:

(1)As shown by the statistical data of the School-based Surveillance System, the morbidity of hand-foot-mouth disease or herpangina ranged from 0.003% to 0.047%. The overall epidemic situation of the diseases was less serious than that in 2008, except two epidemic peaks were found during the 15th -24th week and the 48th - 50th week.

(2)Similar epidemic trend to that obtained by the Sentinel Surveillance System was observed.

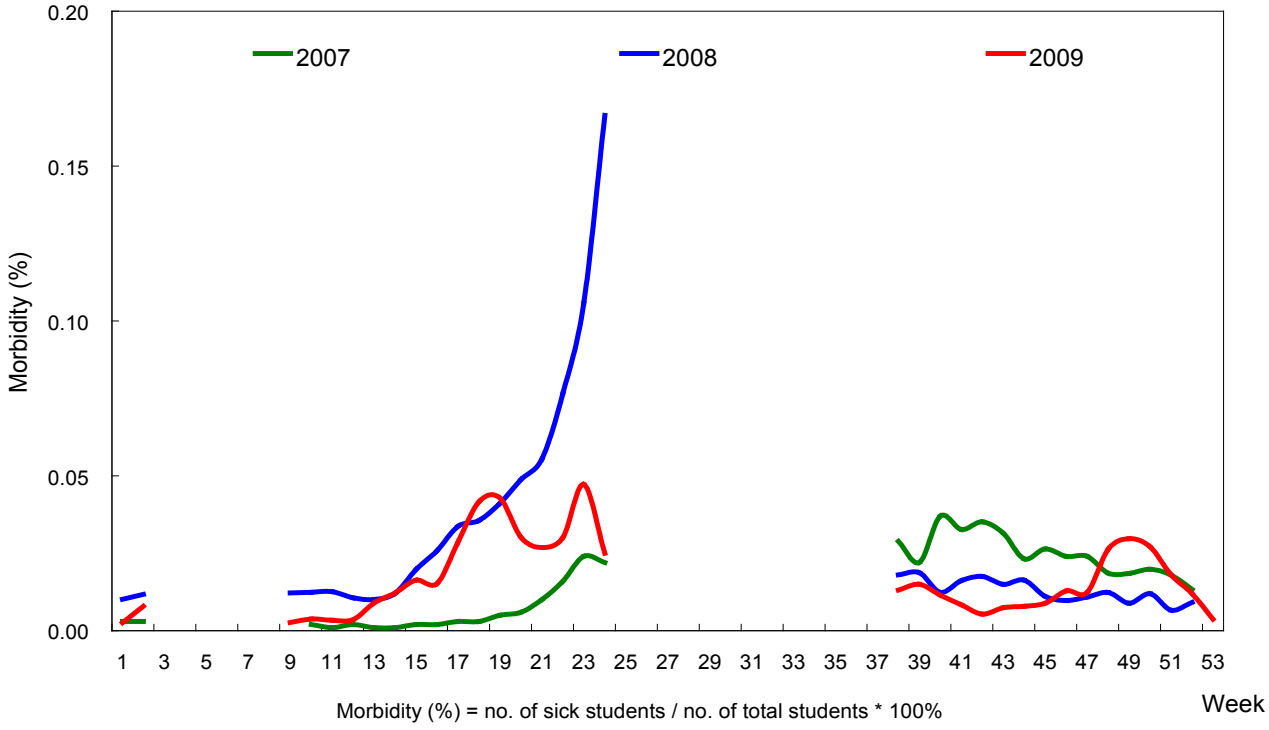


Figure 9 Enterovirus morbidity reported by the School-based Surveillance System, 2007-2009

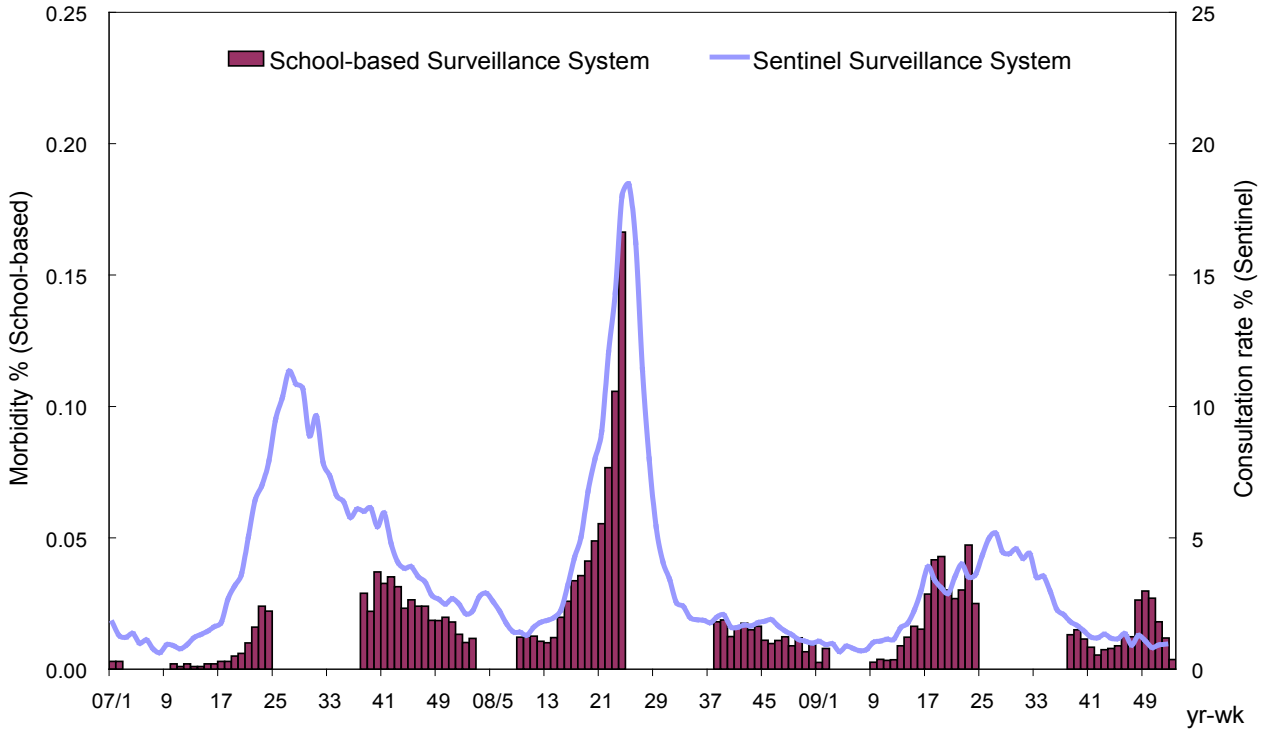


Figure 10 Comparison of Enterovirus morbidity between the School-based Surveillance System and Sentinel Surveillance System

3. Diarrhea

■ Case definition:

More than three times of diarrhea per day and any one of the following symptoms:

(1) vomiting.

(2) fever.

(3) in mucous form or with blood

(4) watery diarrhea.

■ Epidemic analysis:

(1) According to the statistical data of the School-based Surveillance System, the morbidity of diarrhea ranged from 0.02% to 0.10%. The overall epidemic situation was more serious than that in 2007 and 2008 although the epidemic during the 21th to 24th week was milder.

(2) Similar epidemic trend to that obtained by the Sentinel Surveillance System was observed.

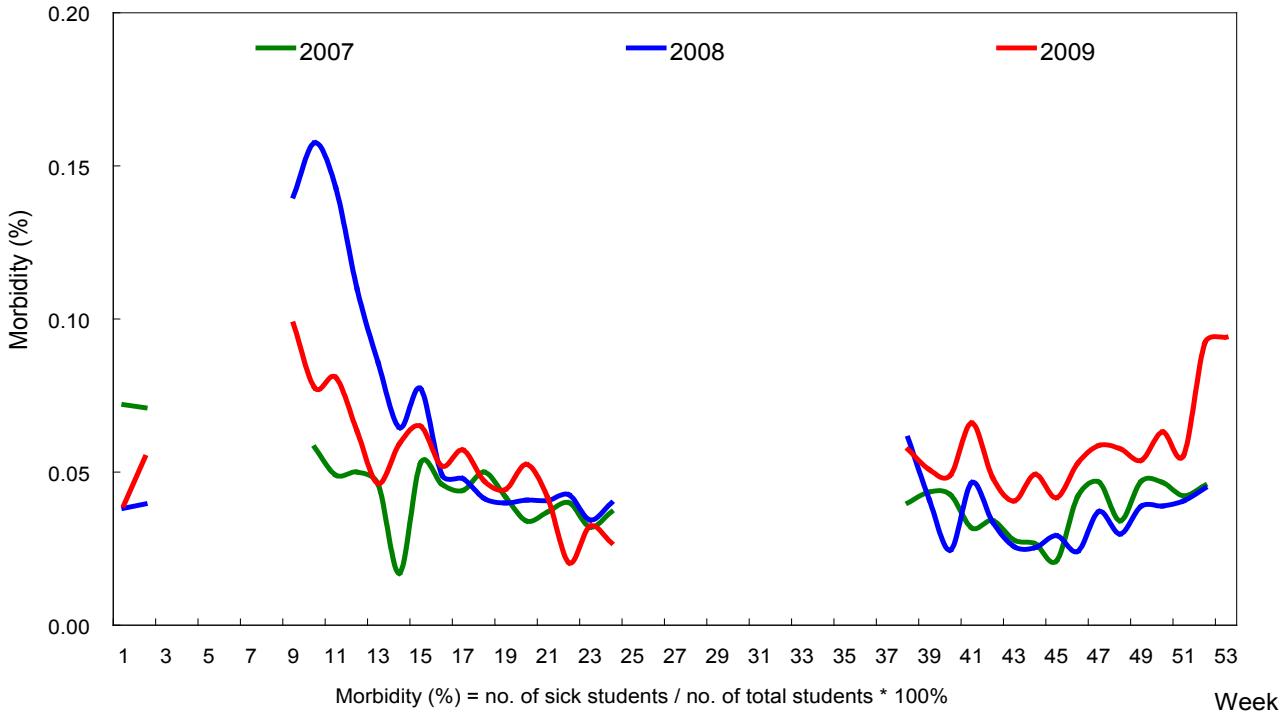


Figure 11 Diarrhea morbidity reported by the School-based Surveillance System, 2007-2009

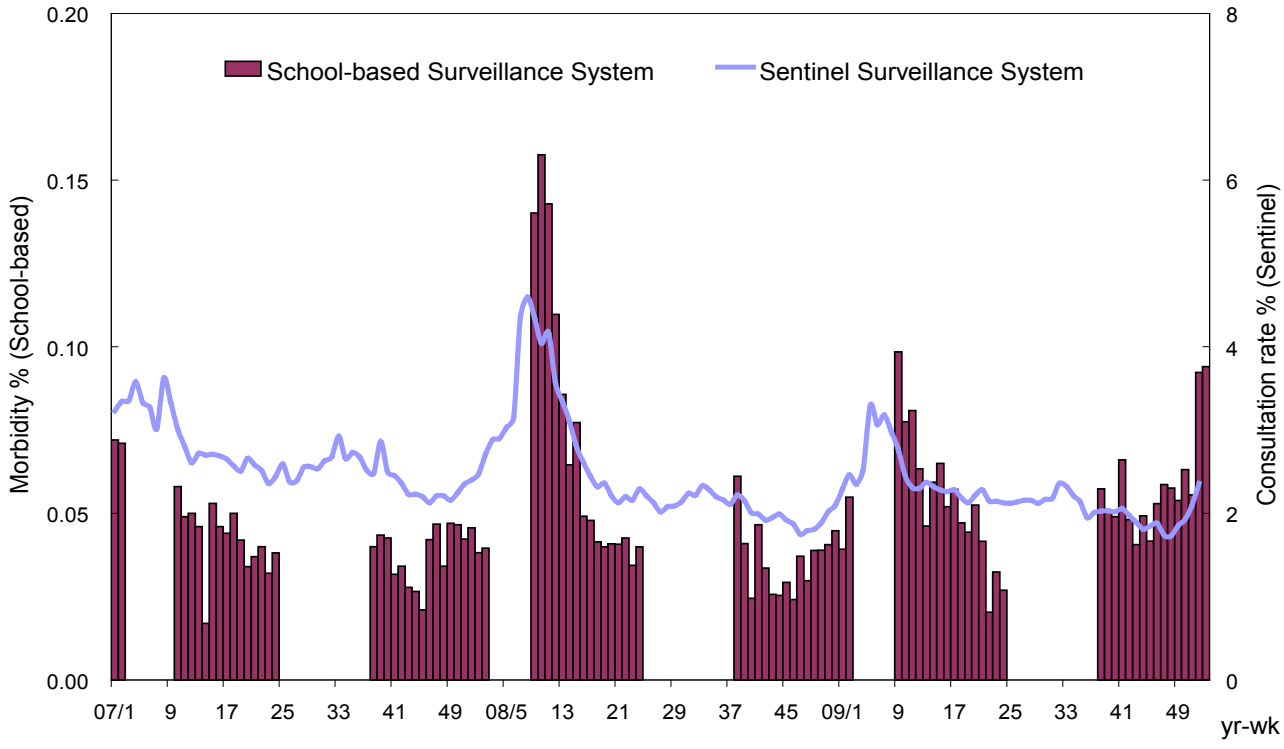


Figure 12 Comparison of Diarrhea morbidity between the School-based System and Sentinel Surveillance System

4. Fever

- Case definition:

  Fever (ear temperature>=38°C) but with no symptoms of ILI, hand-foot-mouth disease, or herpangina and diarrhea described above.

- Epidemic analysis:

  According to the statistical data of the School-based Surveillance System, the morbidity of fever in 2009 was found between 0.19% and 0.83%. From the 38th to 50th week, the epidemic worsened so significantly that the whole epidemic situation was more serious as compared with that in 2007 and 2008.

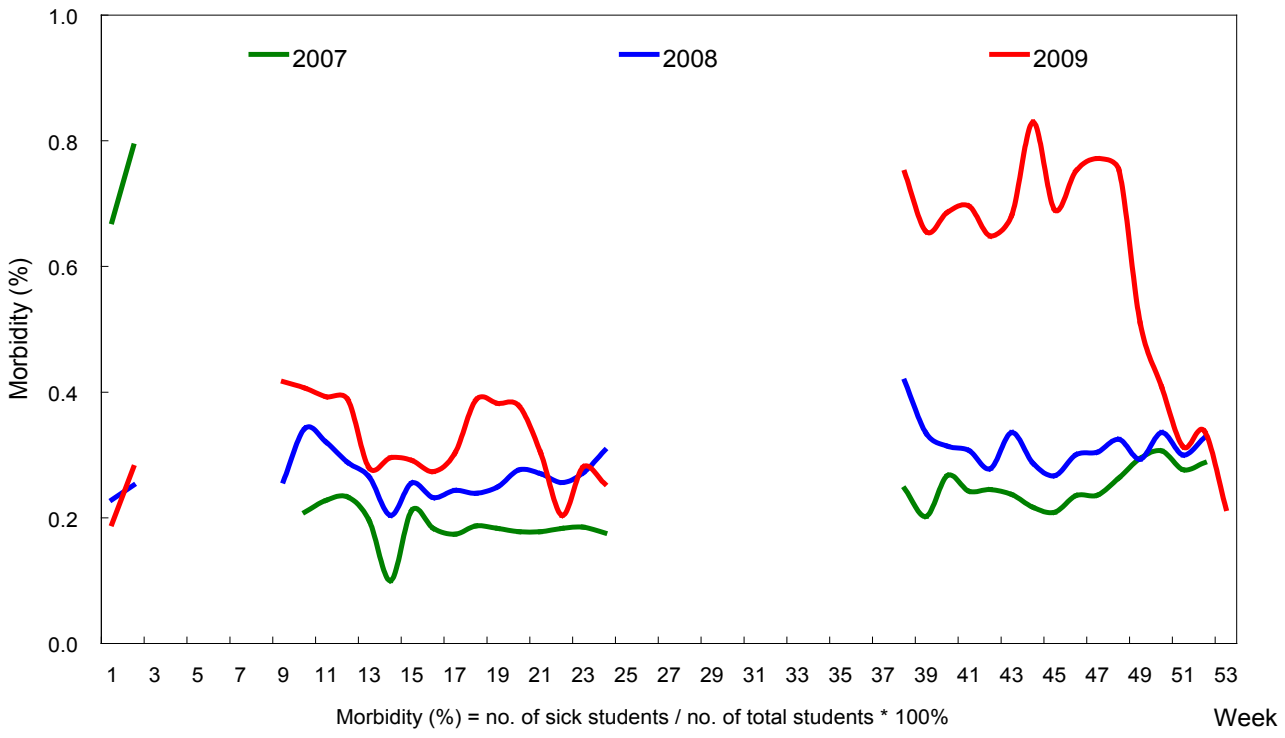


Figure 13 Fever morbidity reported by the School-based Surveillance System, 2007-2009

5. Acute hemorrhagic conjunctivitis (AHC)

■ Case definition:

Eye irritation, scorching, photophobia, watery eyes, feeling of foreign matters, blurry vision, bloodshot conjunctiva, and occasional subconjunctival hemorrhage, a large amount of mucous secretion in eyes, and sometimes pre-auricular lymph nodes enlargement and pressing pain.

■ Epidemic analysis:

As indicated by the statistical data of the School-based Surveillance System, the morbidity of acute hemorrhagic conjunctivitis ranged from 0.000‰ to 0.099‰ and the whole epidemic situation was more stable as compared with that in 2008.

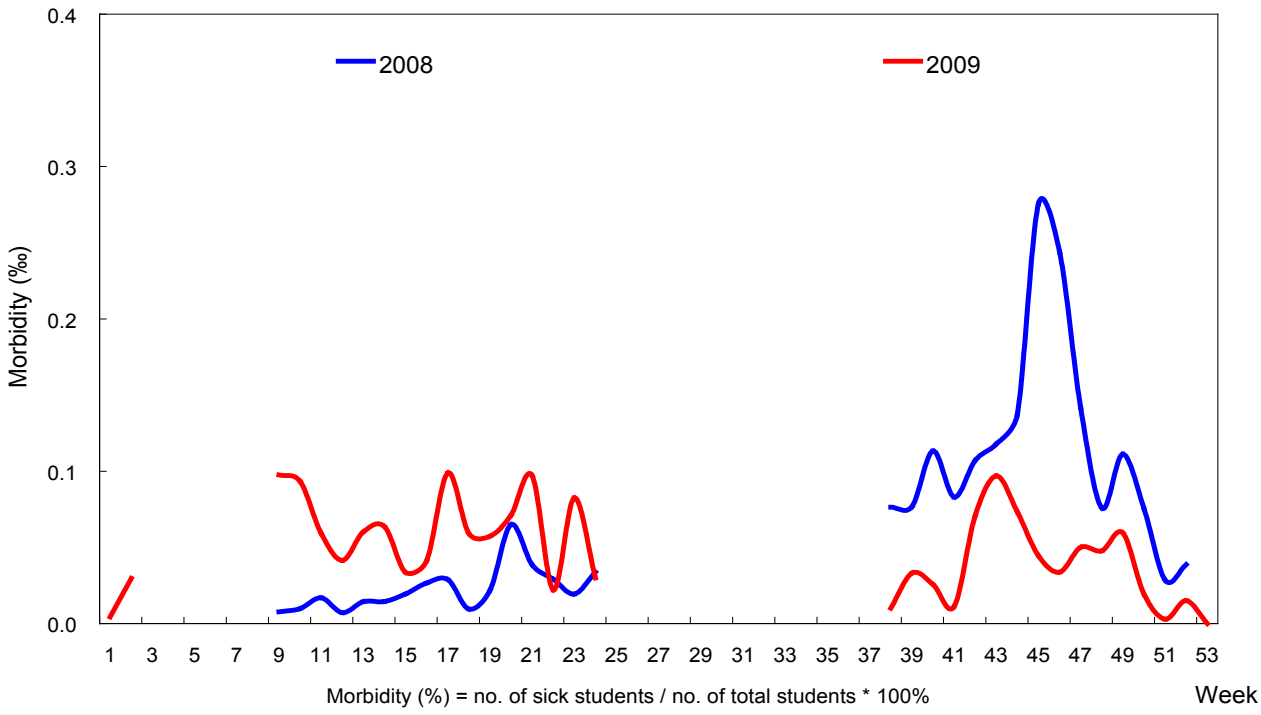


Figure 14 AHC morbidity reported by the School-based Surveillance System, 2008-2009

Laboratory Surveillance System

I. Preface

As the outbreak of enterovirus epidemic in Taiwan in 1998 revealed the inadequacy of Taiwan in laboratory testing of viral infections in terms of both quality and quantity, the Department of Health (DOH) has partnered with contracted laboratories throughout this country for viral infection testings since March, 1999. The DOH not only financed these laboratories, but also managed to improve testing capability and laboratory staff training. The contracted laboratories and specimen-collecting stations form an active detection system, providing good quality laboratory diagnosis service. Such laboratory testing thus can be conducted at central and local levels that improve disease detection rate and time efficiency. This system is mainly responsible for the surveillance of epidemic strains, antigenicity, and drug resistance of enterovirus and influenza virus. For example, it double-checks whether the epidemic viral strains are in line with the strains of immunization, assesses major the activity of viral strains in different seasons, provides references for making epidemic prevention policy, and establishes important local viral genome database and biomaterial database.

II. Distribution of contracted laboratories and responsible regions

There were a total of 10 contracted laboratories for testing viral infections throughout this country in 2009, and their locations and responsible regions are as follows: in North Taiwan, National Taiwan University Hospital (Taipei City, Kinmen County, and Lienchiang County), Chang Gung Memorial Hospital Linko Branch (Taoyuan County, Hsinchu County, and Hsinchu City) and Tri-Service General Hospital (Taipei County, Keelung City, Yilan County, and specimens from military hospitals); in Central Taiwan, China Medical University Hospital (Miaoli County and Taichung City), Taichung Veterans General Hospital (Taichung County and Nantou County), Changhua Christian Hospital (Changhua County and Yunlin County); in South Taiwan, National Cheng Kung University Hospital (Tainan County, Tainan City, Chiayi county, and Chiayi City), Kaohsiung Medical University Hospital (Kaohsiung County, Pingtung County, and Penghu County), Kaohsiung Veterans General Hospital (Kaohsiung City); in East Taiwan, Buddhist Tzu Chi General Hospital (Hualien County and Taitung County).

III. Specimen sources and submission procedures for laboratory testing

Specimens mainly come from the outpatients, hospitalized and emergency patients of medical centers in the same locations of the above contracted laboratories, and 250 specimen collection clinics nationwide. These patients are suspected with influenza or enterovirus infection. Suspected influenza patients should meet the influenza-like illness cases definition (development of fever with body temperature higher than 38°C, cough, sore throat or muscular pain, but excluded from mild rhinitis,

tonsillitis and bronchitis, etc). Patients suspected with enterovirus infection should have hand-foot-mouth disease or herpangina, and their specimens should be collected within 3 days after onset of the disease. Each specimen collection clinic should submit 2 specimens each week to the contracted laboratory in the same location.

Another important task of the contracted laboratories is to test specimens of enterovirus and influenza severe cases. Hospitals that report such cases should collect specimens from the subjects and send the specimens to the contracted laboratories for relevant examinations with the assistance of health bureaus. Results of the laboratory testing will be taken as reference for clinical diagnosis.

1. Specimen handling

A total of 22,825 specimens were accepted from January to December of 2009. Averagely, about 1,902 cases were accepted each month. The numbers of cases accepted in North, Central, South, and East Taiwan were respectively 7,835, 6,040, 6,488, and 2,462. The number of cases accepted in North Taiwan was the highest; the second highest was found in South Taiwan; the third highest was found in Central Taiwan; the lowest number of cases accepted was found in East Taiwan.

2. Enterovirus epidemic situation

From January to December of 2009, a total of 1,666 enterovirus strains have been isolated. After immunostaining with monoclonal antibodies, most strains, as many as 1,359, were confirmed to be coxsackie virus A (23.63%), and 96 strains were coxsackie virus B (1.67%). There were 55 strains of enterovirus type 71 (0.95%) and 28 strains of echovirus confirmed (0.49 %). A total of 11 strains were found to be poliovirus vaccine strains (0.19%). There were 117 strains of nonpolio enterovirus (NPEV) (2.03%).

Out of the total 1,359 strains of coxsackie virus A, 518 strains belonged to type A6 (38.1%), and 463 strains were type A10 (34.1%). The 96 strains of coxsackie virus B were mainly type B1–up to a total of 91 strains (95.8%). Out of the 28 strains of echovirus, 15 strains belonged to type 11 (53.6%), and 7 strains belonged to type 9 (25%). (See Figure 15 for the distribution curve of enterovirus positive rates in contracted laboratories each week.)

Most NPEV strains were confirmed by gene sequencing to be echovirus type 7; the remaining NPEV strains were found to be coxsackie virus A3, coxsackie virus A10, echovirus type 25, coxsackie virus A6, coxsackie virus A4 and echovirus type 11, etc.

To conclude from the above data, the top five common enterovirus types in 2009 were in the order of coxsackie virus A6, A10, A4, B1, and A5. (Please see Figure 16 for distribution of enterovirus types of cases under the Sentinel Physician Surveillance System.)

3. Influenza epidemic situation

From January to December of 2009, a total of 4,126 influenza viral strains were isolated, of which 3,095 strains and 975 strains belonged to pandemic influenza A (H1N1) virus (75%) and seasonal influenza type A virus respectively (23.6%), and another 56 strains were found to be influenza type B virus (1.4%). During the first 15 weeks of 2009, INFAH1 was the major epidemic strain, while after the

29th week, the pandemic influenza A (H1N1) virus became the epidemic strain. (Please see Figure 17 for distribution curve of influenza viruses under the Sentinel Physician Surveillance System.)

The isolated viral strains were subject to gene sequencing, and the results showed that all pandemic influenza A (H1N1) strains were A/California/07/2009. A higher percentage of seasonal type A influenza viral strains was H1N1 and belonged to A/Brisbane/59/2007 while all of the H3N2 influenza viral strains belonged to A/Perth/16/2009. About 80% of type B influenza viral strains were B/Florida/4/2006 (B/Yam), and the remaining viral strains belonged to B/Brisbane/60/2008 (B/Vic) and B/Malaysia/2506/2004 (B/Vic).

The most common types of isolated influenza viral strains were pandemic influenza A (H1N1), INFAH1, INFAH3, and INFB, in the order of each type's probability. (Please see Figure 18 for distribution of influenza viral types under the Sentinel Physician Surveillance System.)

4. Epidemic situations of other respiratory tract viruses

In addition to influenza viruses, other respiratory tract viruses were also isolated, including adenovirus, herpes simplex virus (HSV), parainfluenza virus, cytomegalovirus (CMV), and respiratory syncytial virus (RSV); the numbers of cases of these viruses were respectively 1,056, 675, 423, 84, and 74. (Please see Figure 19 for distribution curve of positive rates of respiratory tract viruses under the Sentinel Physician Surveillance System.)

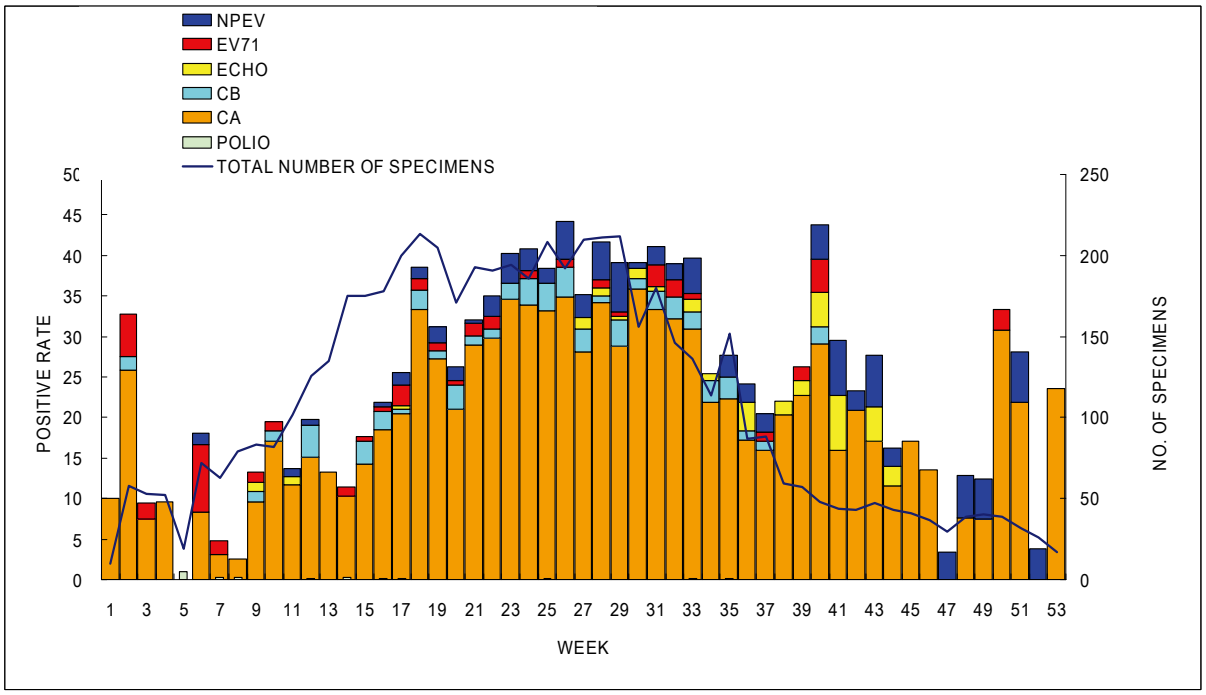


Figure 15 Enterovirus positive isolation rates in specimens collected by the sentinel physicians, 2009

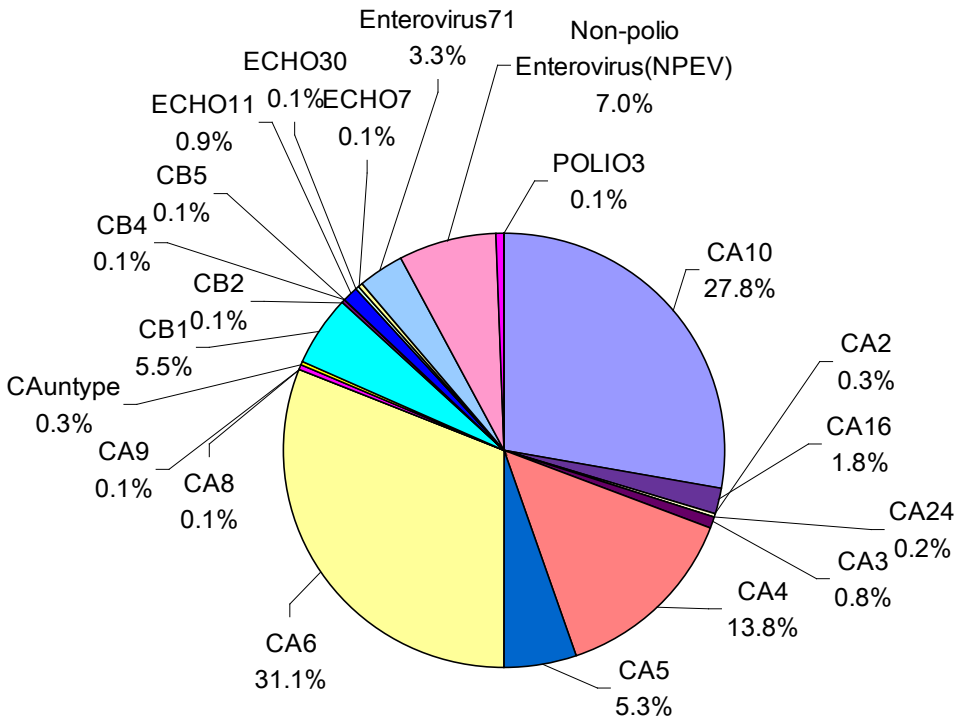


Figure 16 Strain ratios of enterovirus isolates from specimens collected by the sentinel physicians, 2009

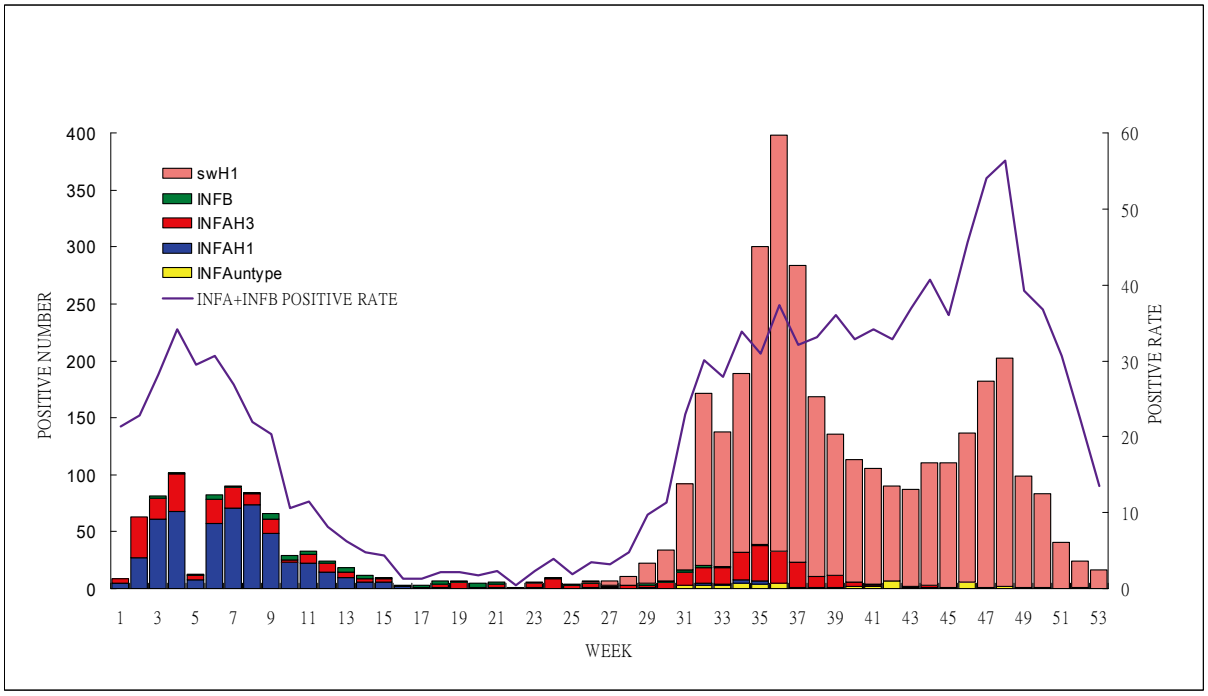


Figure 17 Isolation situations of influenza viruses from specimens collected by the sentinel physicians, 2009

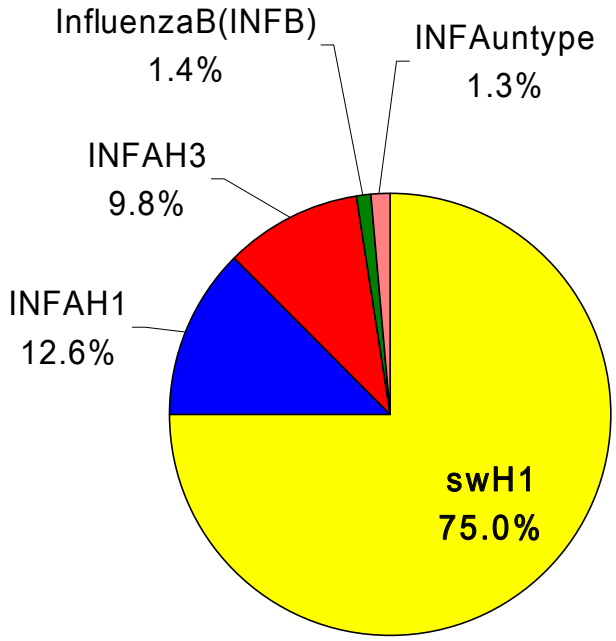


Figure 18 Strain ratios of influenza virus isolates from specimens collected by the sentinel physicians, 2009

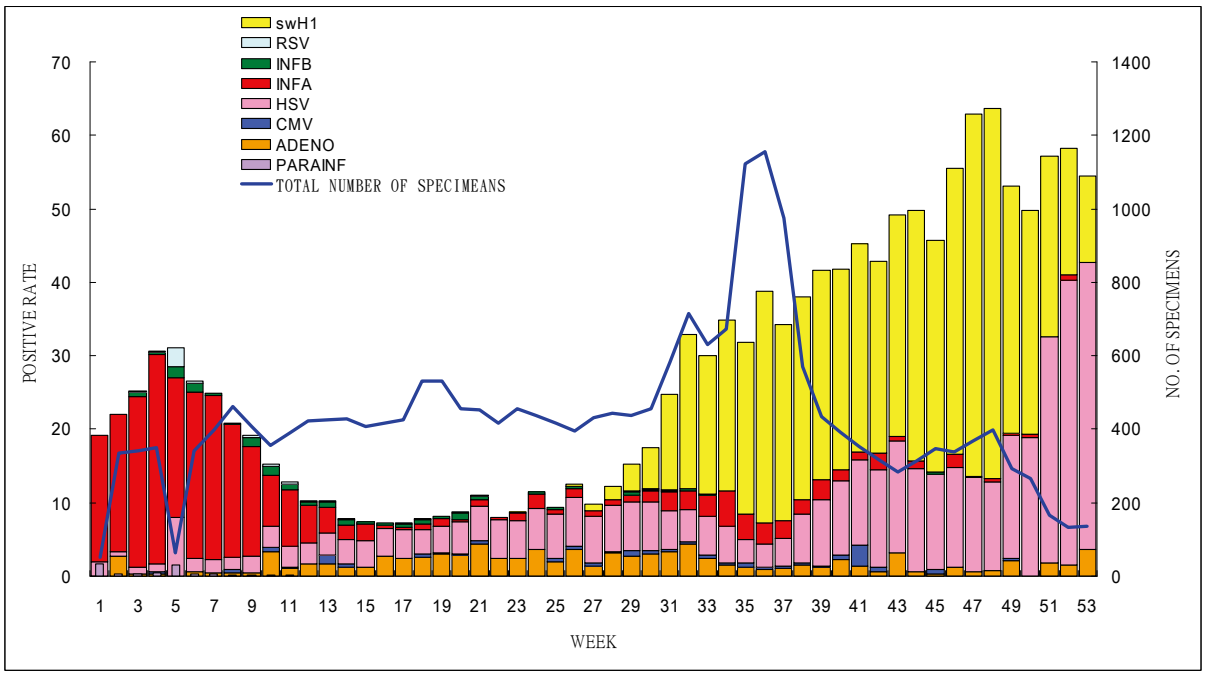


Figure 19 Positive isolation rates for respiratory tract viruses from specimens collected by the sentinel physicians, 2009

Quarantine Service

I. Health checkups for foreign laborers

All legal foreign employees should submit qualified health certificates issued by approved foreign hospitals when applying for an entry visa into Taiwan, and should undergo health checkups at designated hospitals which provide health checkups to foreign employees within 3 days after arriving in Taiwan. Foreign employees should undergo the health checkups within 30 days before or after they have worked for 6, 18, and 30 months in Taiwan to monitor their health conditions. The health checkups for foreign employees cover chest X-ray screening for tuberculosis, HIV antibody test, syphilis serological test, intestinal parasite test, pregnancy test, general physical checkups and Hansen's disease test. An examination report of measles and rubella antibodies positive results and immunization certificate should be provided. Foreign employees should undergo pregnancy test and measles and rubella antibodies tests in their home countries, and these two particulars can be exempted from the health checkups in Taiwan. The hepatitis B antigen test was canceled on February 28, 2009, and the requirement about the aforementioned measles and rubella antibodies testing report and immunization certificate was implemented on September 1, 2009.

Foreign employees who are found with intestinal parasites (amoebiasis not included) are given 45 days for necessary treatments before receiving a follow-up examination. Those who are syphilis positive should complete the treatment within 30 days. If any one of the designated particulars is found unqualified, or if any of the four communicable diseases designated by the central health competent authority is confirmed, the affected foreign employee should be dispatched back to his or her home country by the set deadline in accordance with relevant laws and regulations for the sake of epidemic prevention in Taiwan.

To prevent imported typhoid fever cases from Indonesia, within one year after October 15, 2009, typhoid fever foreign employees from Indonesia should consult physicians for typhoid fever symptoms, and take typhoid fever test (stool culture) and consult physicians for typhoid fever symptoms within 3 days after entering Taiwan.

In 2009, the health checkups described previously were provided to a total of 407,950 foreign employees, and 7,137 of them were found unqualified. The unqualified rate was 1.75%. The highest unqualified rate, 1.62%, was due to intestinal parasite diseases that the number of unqualified foreign employees was 6,592. The chest X-ray tuberculosis examination results of 481 foreign employees were unqualified, marking the unqualified rate at 0.12%. There were also 17 HIV positive cases identified (Table 16).

II. Health declaration of inbound passengers

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

From January to December of 2009, the number of inbound passengers was 12,643,165, and 17,070 of them filled in the “Communicable Disease Survey Form” who 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, 23 shigellosis cases, 6 chikungunya fever cases, 1 malaria case, and 21 cases of 2009 pandemic influenza A (H1N1) (April 27~June 19). (Table 17)

Table 16 Physical examinations status of foreign labors, 2009

Unit : Person,%

Country	Physical Examinations		Failed	X-ray	HIV	Syphilis	Hepatitis B	Parasites	Hansen's disease	Mental condition	Others
Thailand	At Entry	19,468	42 0.22%	6 0.03%	- -	- -	- -	30 0.15%	- -	- -	6 0
	Periodic	61,082	802 1.31%	99 0.16%	3 0.00%	- -	- -	699 1.14%	1 0	- -	- -
Indonesia	At Entry	40,696	59 0.14%	5 0.01%	- -	2 0.00%	3 0.01%	42 0.10%	- -	- -	7 0
	Periodic	123,990	3,122 2.52%	169 0.14%	10 0.01%	13 0.01%	- -	2,930 2.36%	- -	- -	- -
Philippines	At Entry	19,674	44 0.22%	6 0.03%	- -	2 0.01%	- -	36 0.18%	- -	- -	- -
	Periodic	63,877	1,301 2.04%	126 0.20%	1 0.00%	6 0.01%	- -	1,168 1.83%	- -	- -	- -
Malaysia	At Entry	5	- -	- -	- -	- -	- -	- -	- -	- -	- -
	Periodic	0	- -	- -	- -	- -	- -	- -	- -	- -	- -
Vietnam	At Entry	15,208	77 0.51%	8 0.05%	1 0	- -	- -	66 0.43%	- -	- -	2 0
	Periodic	63,949	1,690 2.64%	62 0.10%	2 0.00%	5 0	- -	1,621 2.53%	- -	- -	- -
Mongolia	At Entry	0	- -	- -	- -	- -	- -	- -	- -	- -	- -
	Periodic	1	- -	- -	- -	- -	- -	- -	- -	- -	- -
Others	At Entry	0	- -	- -	- -	- -	- -	- -	- -	- -	- -
	Periodic	0	- -	- -	- -	- -	- -	- -	- -	- -	- -
Total	At Entry	95,051	222 0.23%	25 0.03%	1 0.00%	4 0.00%	3 0.00%	174 0.18%	- -	- -	15 0
	Periodic	312,899	6,915 2.21%	456 0.15%	16 0.01%	24 0.01%	- -	6,418 2.05%	1 0	- -	- -
Total		407,950	7,137 1.75%	481 0.12%	17 0.00%	28 0.01%	3 0.00%	6,592 1.62%	1 0	- -	15 0

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

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

Table 17 Statistic of CDC "Communicable Diseases Survey Form " in 2009

Month	Inbound passenger No.	Cases with symptom		Pathogen detected		Note
		Case No.	Case percentage (%)	Notifiable disease (case No.)	Others (case No.)	(Traveling country)
Jan.	969,750	1,920	0.20	Dengue fever (13), Shigellosis (2)	Vibrio parahaemolyticus(1)	Vietnam, Indonesia, Thailand, India (Dengue feve) / Indonesia, Philippines(Shigellosis) / Philippines (Vibrio parahaemolyticus)
Feb.	873,040	1,770	0.20	Dengue fever (4), Shigellosis (1)	Vibrio parahaemolyticus(3)	Vietnam, Indonesia(Dengue feve) / Indonesia (Shigellosis) / Indonesia, China, Philippines (Vibrio parahaemolyticus)
Mar.	1,016,993	1,164	0.11	Dengue fever (5)	Vibrio parahaemolyticus(5)	Indonesia, Vietnam(Dengue fever) / Thailand, Philippines (Vibrio parahaemolyticus)
Apr.	1,119,087	1,161	0.10	Dengue fever (9), Shigellosis (1), Chikungunya fever (1)	Vibrio parahaemolyticus (1)	Vietnam, Indonesia, Myanmar, Thailand (Dengue fever) / Laos (Shigellosis) / Indonesia (Chikungunya fever) / Indonesia (Vibrio parahaemolyticus)
May	1,062,635	1,640	0.15	Dengue fever (7), Shigellosis (6), 2009 pandemic influenza A(H1N1) (6)	Vibrio parahaemolyticus(1)	Vietnam, Indonesia, Philippines, Thailand (Dengue fever) / Vietnam, Cambodia, India (Shigellosis) / U.S.,Canada (2009 pandemic influenza A(H1N1)) / Thailand (Vibrio parahaemolyticus)
Jun.	892,058	1,194	0.13	Dengue fever (10), Shigellosis (3), 2009 pandemic influenza A (H1N1) (15)	Vibrio cholerae(1) (not included in the list of notifiable communicable diseases), Salmonella (1)	Vietnam, Indonesia, Cambodia, Philippines (Dengue fever) / Cambodia, Philippines, Vietnam (Shigellosis) / Australia, U.S., Thailand (2009 pandemic influenza A(H1N1)) China(Vibrio cholerae) / China (Salmonella)
Jul.	1,106,957	1,833	0.17	Dengue fever (15), Shigellosis (1)	Vibrio cholerae(1) (not included in the list of notifiable communicable diseases), Vibrio parahaemolyticus (3), Salmonella (3)	Vietnam, Indonesia, Malaysia, Philippines, Cambodia, Pakistan(Dengue fever) / China(Shigellosis) / China(Vibrio cholerae) / Thailand, China(Vibrio parahaemolyticus) / Vietnam, China, Thailand (Salmonella)
Aug.	1,207,433	2,192	0.18	Dengue fever (19), Shigellosis (3), Chikungunya fever (1)	Vibrio cholerae(1) (not included in the list of notifiable communicable diseases), Vibrio parahaemolyticus (2)	Vietnam, Thailand, Philippines, Indonesia, Cambodia (Dengue fever) / Vietnam, China, Philippines(Shigellosis) / Indonesia (Chikungunya fever) / Philippines (Vibrio cholerae), Vietnam, China (Vibrio parahaemolyticus)
Sep.	985,334	1,080	0.11	Dengue fever (7), Shigellosis (1), Chikungunya fever (1)	Vibrio parahaemolyticus (5), Salmonella (2)	Vietnam, India, Philippines, Thailand (Dengue fever) / China, Indonesia, Vietnam (Shigellosis) / Indonesia (Chikungunya fever) / Vietnam, China, Philippines, Thailand (Vibrio parahaemolyticus) / Japan, China (Salmonella)
Oct.	1,038,469	836	0.08	Dengue fever (9), Shigellosis (1)	Vibrio parahaemolyticus(2), Salmonella (3)	Vietnam, Malaysia, Philippines, Indonesia, Cambodia, Thailand (Dengue fever) / Japan (Shigellosis) / Thailand (Vibrio parahaemolyticus) / China, Macao, Malaysia(Salmonella)
Nov.	1,148,289	1,139	0.10	Dengue fever (9), Chikungunya fever (1), Malaria (1)	Vibrio parahaemolyticus (2)	Vietnam, China, Bangladesh, Indonesia, Myanmar, Malaysia (Dengue fever) / Thailand (Chikungunya fever) / Thailand (Malaria) / Philippines (Vibrio parah aemolyticus)
Dec.	1,223,120	1,141	0.09	Dengue fever (11), Shigellosis (1), Chikungunya fever (2)	Vibrio parahaemolyticus (4), Salmonella (1)	Vietnam, Indonesia, Philippines, Thailand, China (Dengue fever) / Indonesia (Shigellosis) / U.S., Malaysia (Chikungunya fever) / Thailand (Vibrio parahaemolyticus) / Philippines (Salmonella)
Total	12,643,165	17,070	0.14	Dengue fever (118), Shigellosis (23), Chikungunya fever (6), Malaria (1), 2009 pandemic influenza A(H1N1) (21)	Vibrio cholerae(3) (not included in the list of notifiable communicable diseases), Vibrio parahaemolyticus (29), Salmonella (10)	

Mosquito Surveillance

Located in the tropical and subtropical zones, Taiwan is featured by its humid and hot weather which is very suitable for propagation of disease-carrying mosquitoes, the dengue fever vector mosquitoes, *Aedes aegypti* and *Ae. albopictus*, and malaria vector mosquito, *Anopheles minimus*.

I. Dengue fever vector mosquitoes

Surveillance of dengue fever vector mosquitoes has been in place since the outbreak of dengue fever in South Taiwan in 1988. The analytical results of vector mosquito data are described as follows. City/ County health bureaus have investigated 54,635 wards/villages; the numbers of wards/villages marked at density figures 0 to 9 were 32,946, 14,055, 4,493, 2,251, 708, 130, 43, 7, 1, and 1, respectively (Table 18). The number of wards/villages rated above density figure 2 increased by months, reaching its peak in the August-September period and decreased after (Figure 20).

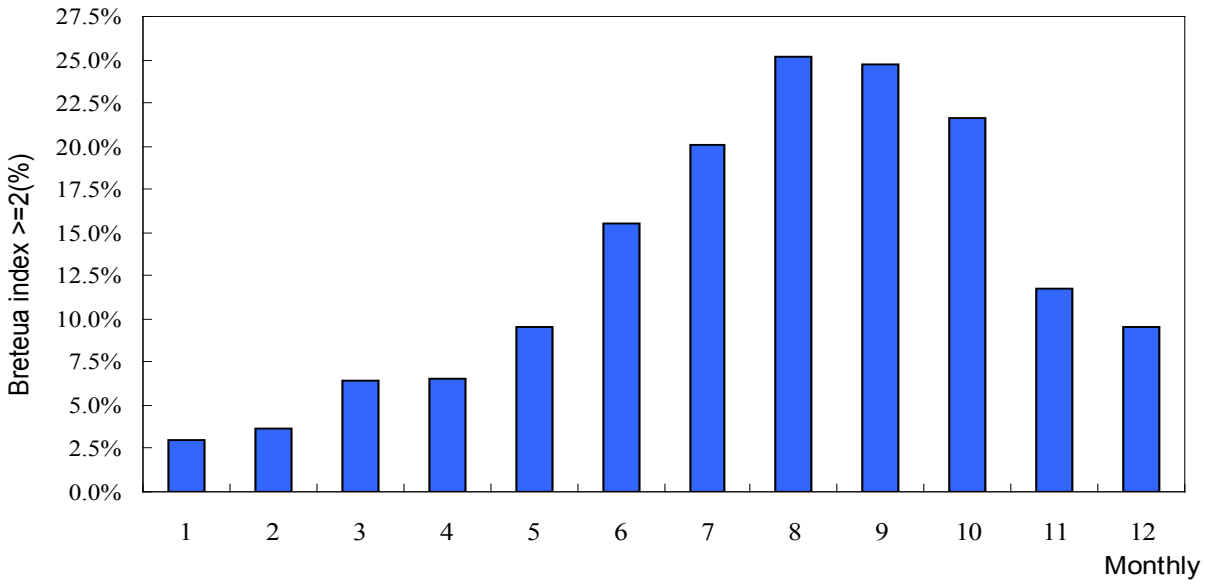


Figure 20 The percentages of wards/villages with Dengue fever vectors by month in 2009

Table 18 Distribution of Breteua index, 2009

Locality	Villages (No. of times)	Breteua Index									
		0	1	2	3	4	5	6	7	8	9
Taipei City	2,013	1,426	527	49	8	1	-	-	1	1	-
Kaohsiung City	6,985	2,181	2,623	1,225	765	173	15	3	-	-	-
Taipei County	2,218	1,971	205	25	9	3	1	4	-	-	-
Yilan County	1,195	1,104	83	6	2	-	-	-	-	-	-
Taoyuan County	6,602	6,222	360	15	4	1	-	-	-	-	-
Hsinchu County	1,051	819	212	16	2	2	-	-	-	-	-
Miaoli County	529	52	323	129	20	4	1	-	-	-	-
Taichung County	1,465	959	458	44	4	-	-	-	-	-	-
Changhua County	1,235	705	453	67	8	2	-	-	-	-	-
Nantou County	785	554	207	19	4	1	-	-	-	-	-
Yunlin County	940	696	236	6	1	-	-	1	-	-	-
Chiayi County	3,383	3,288	89	6	-	-	-	-	-	-	-
Tainan County	2,608	820	1,112	605	60	10	1	-	-	-	-
Kaohsiung County	5,196	1,089	1,571	1,038	977	393	91	32	5	-	-
Pingtung County	4,265	1,172	2,066	635	277	97	16	1	1	-	-
Taitung County	3,927	2,961	761	137	51	12	3	2	-	-	-
Hualien County	957	865	81	9	2	-	-	-	-	-	-
Penghu County	1,040	920	82	32	6	-	-	-	-	-	-
Keelung City	391	284	90	16	-	-	-	-	-	-	1
Hsinchu City	725	466	240	16	1	1	1	-	-	-	-
Taichung City	536	392	116	23	2	3	-	-	-	-	-
Chiayi City	1,513	1,206	287	20	-	-	-	-	-	-	-
Tainan City	4,957	2,714	1,834	355	48	5	1	-	-	-	-
Kinmen County	72	33	39	-	-	-	-	-	-	-	-
Lienchiang County	47	47	-	-	-	-	-	-	-	-	-
Total	**54,635**	**32,946**	**14,055**	**4,493**	**2,251**	**708**	**130**	**43**	**7**	**1**	**1**

II. Malaria vector mosquitoes

In 2009, mosquito light traps were hung for collections of adult mosquitoes in 257 villages, 64 townships, including Jianshi and Wufeng in Hsinchu County, Dahu, Taian and Zaoqiao in Miaoli County, Dongshi in Taichung County, Yuchi in Nantou County, Alishan, Minxiong, Dalin, Xikou, Shuishang, Dongshi, Taibao and Lucao in Chiayi County, Nanxi, Zuozheng, Nanhua, Lonqi, Xinhua and Guanmiao in Tainan County, Maolin, Shanlin, Taoyuan and Qishan in Kaohsiung County, Chunri, Checheng, Shizi, Manzhou and Laiyi in Pingtung County, Toucheng, Yuanshan, Suao, Wujie, Jiaoxi, Dongshan, Sanxing, Zhuangwei and Nanao in Yilan County, Yilan City, Shoufeng, Guangfu, Fuli, Xiulin, Jian, Fenglin, Zhuoxi, Xincheng, Fengbin, Wanrong and Yuli in Hualien County, Hualien City, Taitung City, Dawu, Beinan, Taimali, Chishang, Chenggong, Changbin, Luye, Donghe, Jinfeng, Daren and Guanshan in Taitung County. Adult mosquitoes of *An. minimus* were trapped in 27 villages, 9 townships (Table 19 and Figure 21). The highest density of this mosquito was found in Tuci Village of Longci Township in Tainan County. In May, one single light trap per night had captured 47.75 mosquitoes of *An. minimus* in average.

Table 19 The number of adult mosquitoes of *Anopheles minimus* collected in 2009.

County / Township		*An. minimus* (No.)	Villages (No.)	Villages with *An. minimus*
Taitung County	Dawu	6	3	Dazhu, Shangwu, Nanxing
	Donghe	63	5	Beiyuan, Donghe, Dulan, Longchang, Xingchang,
	Changbin	23	3	Zhuhu, Ningpu, Zhangyuan
Tainan County	Longci	251	6	Shihcao, Longchuan, Daping, Tuci, Qiding, Niupu
Hwalien County	Guangfu	75	3	Daquan, Dajin, Xifu
	Shoufeng	72	2	Pinghe, Gonghe
	Hwalian	2	1	Guoguang
Pingtung County	Checheng	6	2	Tongpu, Wenquan
	Manzhou	4	2	Lide, Manzhou
Total	**9 townships**	**502**	**27**	

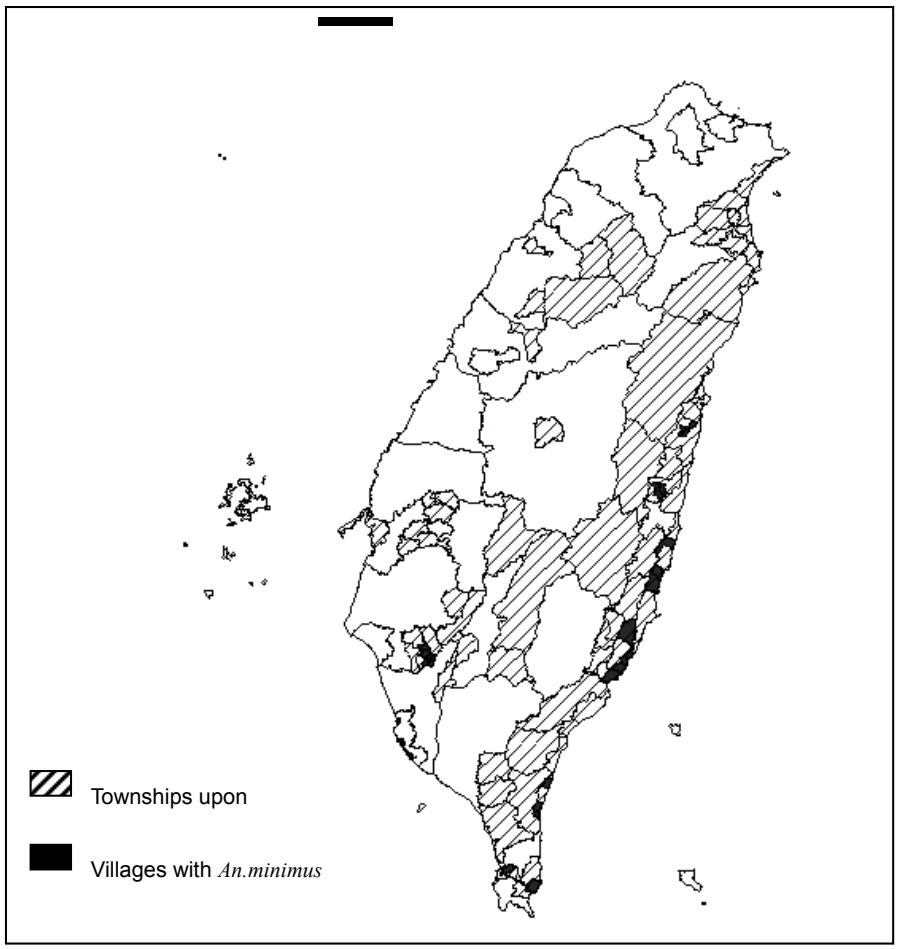


Figure 21 Distribution of *Anopheles minimus*, 2009

Symptom Surveillance System

I. Preface

In March, 2003, the epidemic of the century, SARS, swept across the world, devastating Taiwan's society and economy. In December of the same year, after avian flu epidemics occurred in Korea, Japan, and Vietnam, all Asian countries have become avian flu epidemic countries except Taiwan. Dead cases due to H5N1 were then reported in Vietnam, Thailand, and Cambodia. The general public was terrified. The Symptom Surveillance System was then established to prevent invasion of viruses, and early detect communicable diseases so that epidemic preventive measures could be adopted quickly. In 2006, incorporation with the active surveillance system improved the effectiveness of epidemic prevention against imported diseases, and the convenience and accessibility of the Symptom Surveillance System to achieve the goal of early detection and prevention of diseases. The Symptom Surveillance System currently targets H5N1 influenza patients under investigation, influenza-like illness, fever of unknown causes, diarrhea, upper respiratory tract infection, persistent coughing for more than three weeks and enterovirus.

II. Objectives

1. To monitor inbound passengers at airports and seaports in order to prevent import of communicable diseases.
2. To effectively control epidemic events and launch epidemic prevention measures timely.

III. Reporting method and data analysis

Medical facilities (which can report H5N1 influenza cases under investigation and diarrhea cases only) or health bureaus and stations enter the data into the reporting system of communicable diseases cases–-Symptom Surveillance System through the Internet. Epidemic prevention staff of the health bureaus and stations and Taiwan CDC will then use Business Objects (BO) to download reporting data, laboratory testing data, and testing results for analytical efforts.

IV. Description of reportable diseases

■ H5N1 person under investigation:

1. A subject under investigation should meet one of the following criteria:

(1) A case under investigation should also meet the following clinical epidemiological conditions:

* Clinical conditions (any one of the following conditions):

-Influenza-like illness case reporting definition

-Pneumonia cases shown by chest X-ray

* Epidemiological conditions (any one of the following conditions within 7 days before onset of the disease)

- In contact with animals (or animal excretions) or suspected, possible or confirmed H5N1 influenza cases in Taiwan

-Having traveled to countries where H5N1 influenza human or animal cases were confirmed within one preceding month, and have contacted animals or poultry and livestock farms.

- Having worked in the laboratory responsible for influenza virus experiments.

(2) Patients with rapidly worsening pneumonia for unknown reasons.

(3) H5 subtype influenza virus patients confirmed by the central competent health authority or its designated local authorities, medical care institutions or academic research institutions with laboratory testing capabilities.

2. Analysis of H5N1 case under investigation reporting data: A total of 18 cases were reported in 2009, but there were no confirmed cases. Two of them were found to be influenza positive (1 AH1/ 1 AH3), and the others were negative. In 2008, 10 cases were reported with no cases confirmed; 6 of them were found to be influenza positive (4 AH1/ 2 AH3) while the others were negative.

Table 20 Statistics of cases of person-under-investigation for H5N1 influenza, 2008-2009

Year	Cluster Number	Case Number	H5 Positive	Influenza Positive	Negative
2008	-	10	-	6 (4AH1/2AH3)	4
2009	-	18	-	2 (1AH1/1AH3)	16
Total	-	28	-	8 (5AH1/3AH3)	20

■ Influenza-like illness clustering

1. Case definition: show symptoms that fit the case definitions for reporting Influenza-likeIllness, associate with each other in terms of relationship, time, location, and that are suspected to be an influenza-like Illness clusters and may possibly spread out the disease.

※ Influenza-like illness case reporting definition: the following three criteria should be met:

(1) Sudden onset of the disease, fever (ear temperature>=38°C) and respiratory tract symptoms;

(2) Muscular pain or headache or extreme tiredness

(3) Exclusion of simple rhinorrhea, tonsillitis and bronchitis.

2. Description of data analysis includes type of groups (institutions), virus type, and month of onset, etc.
3. Influenza-like illness clusters analysis: In 2009, a total of 246 clusters of influenza-like illness were reported. Among them, 203 were confirmed with influenza positive (201A / 2B) and the remaining were negative. In 2008, 27 clusters were reported. Among them, 25 were confirmed influenza positive (18A/7B) while the remaining were negative. Influenza-like illness clusters occurred most often at schools, and then, populous institutions, other places (including homes and offices, etc.), hospitals and militaries.

Table 21 Test results for influenza-like illness clustering incidents in 2008-2009

Years	Cluster No.	Type A Influenza	Type B Influenza	Negative
2008	27	18	7	2
2009	246	201	2	43
Total	273	219	9	45

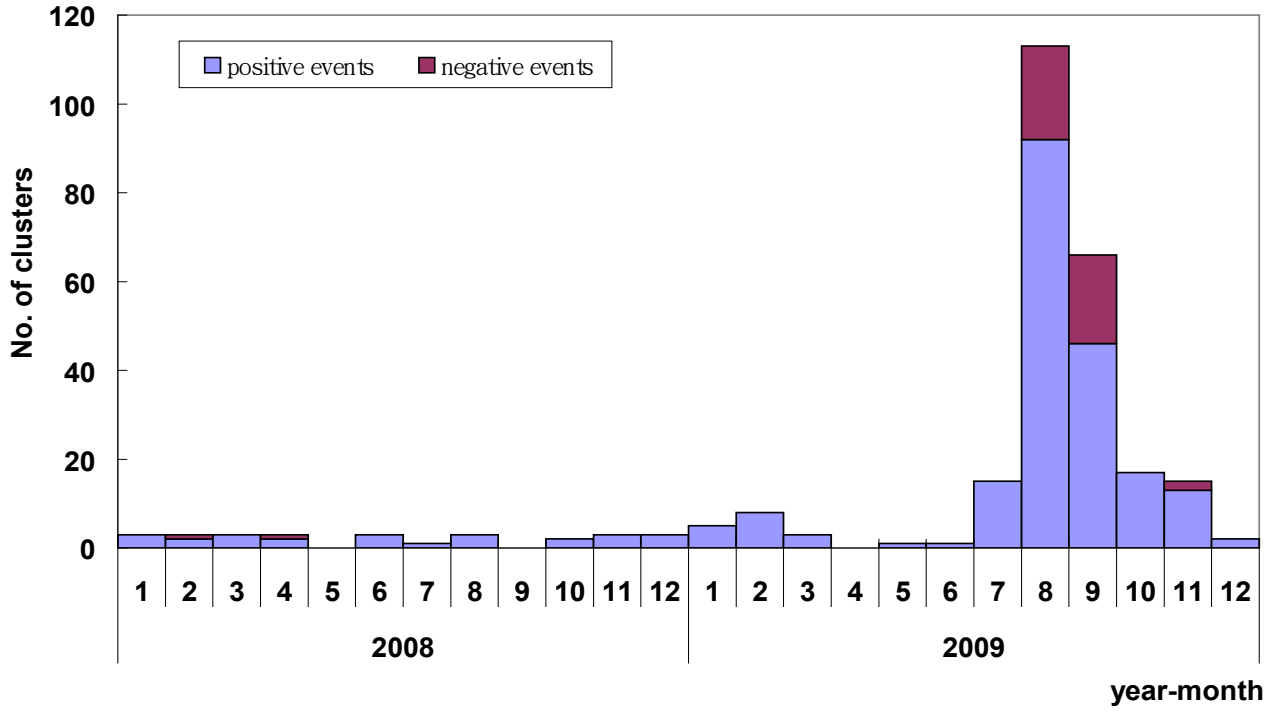


Figure 22 Evolutional trends of influenza-like illness clustering incidents in 2008-2009

Table 22 Distribution of clusters of influenza-like illness cases (by location), 2008-2009

Institution categories	2008	2009	Total
populous institutions	6	38	44
hospitals	5	20	25
schools	12	137	149
military	3	20	23
other	1	31	32
Total	27	246	273

■ Diarrhea clustering

1. Case definition: Excluding cases with gastrointestinal symptoms due to notifiable communicable diseases and food poisoning, cases developing gastrointestinal symptoms and associating with each other in terms of relationship, time and location are suspected to be clusters and may spread out the disease.
2. Description of data analysis includes type of groups (institutions), virus type and month of onset, etc.
3. Analysis of diarrhea clusters: A total of 77 diarrhea clusters were reported in 2009 --54 of them were confirmed norovirus positive; 1 case was found positive against norovirus and rotavirus; 1 case was found rotavirus positive; the remaining were negative. In 2008, 49 diarrhea clusters were reported--30 of them were found norovirus positive; 8 cases were rotavirus positive; the remaining were negative. Diarrhea clusters occurred most often at schools, and then, populous institutions, hospitals and other places (including homes and offices, etc.).

Table 23 Test results for diarrhea clustering incidents in 2008-2009

Years	Cluster No.	Norovirus	Norovirus+ Rotavirus	Rotavirus	Negative
2008	49	30	0	8	11
2009	77	54	1	1	21
Total	126	84	1	9	32

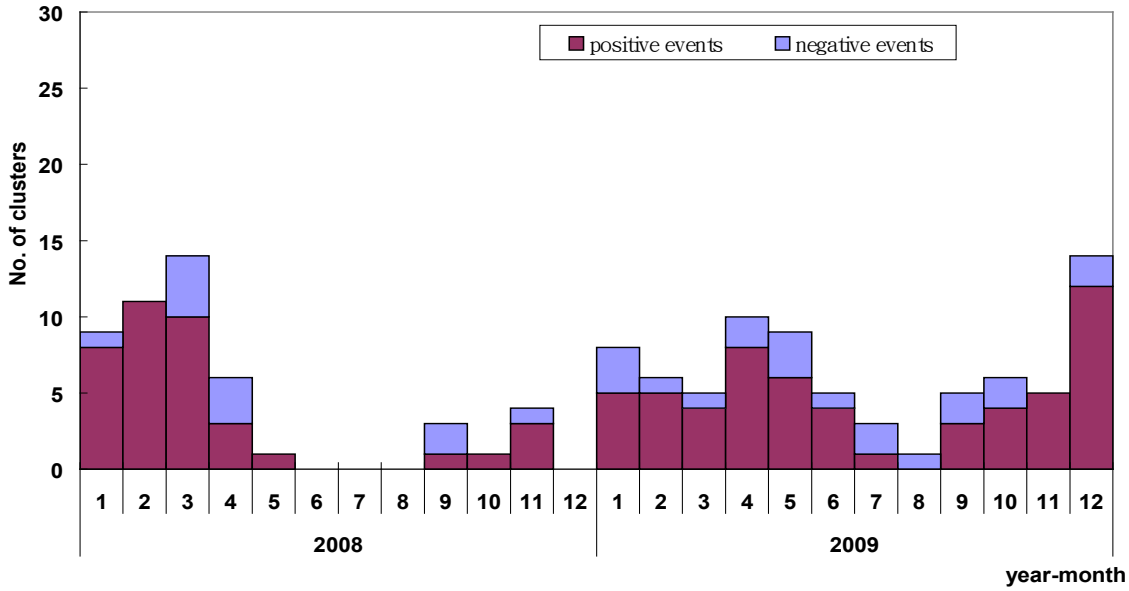


Figure 23 Evolutional trends of diarrhea clusters in 2008-2009

Table 24 Distribution of clusters of diarrhea cases (by location), 2008-2009

Institution categories	2008	2009	Total
populous institutions	17	15	32
hospitals	9	5	14
schools	15	52	67
military	1	0	1
other	7	5	12
Total	49	77	126

■ **Upper respiratory tract infection (URI) clustering**

1. Case definition: Cases developing upper respiratory tract symptoms and associating with each other in terms of relationship, time, and location are suspected to be clusters and may spread out the disease.
2. Analysis of upper respiratory tract clusters: In 2009, a total of 53 upper respiratory tract clusters were reported with 32, 5, and 1 cases of them confirmed positive against type A influenza, enteorvirus, and respiratory syncytial virus respectively. The remaining were negative. Upper respiratory tract clusters occurred most often at schools--as many as 21 cases, and then, 16 cases in populous institutions, 8 clusters in other places (including homes and offices, etc.), 6 cases at hospitals and 2 cases in militaries.

■ **Fever Clustering of unknown causes**

1. Case definition: Cases developing fever of unknown causes and associating with each other in terms of relationship, time, and location are suspected to be clusters and may spread out the disease.
2. Analysis of fever clusters of unknown causes: In 2009, a total of 19 fever clusters were reported--13 of them were found type A influenza positive, and 1 was confirmed norovirus positive. One case was positive against adenovirus, and 4 cases were negative. There were 13 clusters occurring at schools, 2 in populous institutions, 2 in other places (including homes and offices, etc.), 1 at hospitals and 1 in military.

■ **Clustering with persistent cough for more than three weeks:**

1. Case definition: Cases with persistent cough for more than three weeks associating with each other in terms of relationship, time, and location are suspected to be clusters and may spread out the disease.
2. Analysis of clusters with persistent cough for more than three weeks: No clusters with persistent cough for more than three weeks were reported in 2009.

■ Enterovirus clustering

1. Case definition: Occurring in the newborn nursery room and newborn wards at hospitals, nursery centers, and postnatal care centers, etc., cases and people in contact with them are suspected to contract enterovirus infections with severe complications.
2. Analysis of enterovirus clusters: No enterovirus clusters were reported in 2009.

Real-time Outbreak and Diseases Surveillance System

I. Objectives

The Real-Time Outbreak and Disease Surveillance System (RODS) is an automated syndrome surveillance system which introduced to about more then 170 medical care institutions throughout this country, and it automatically transmits the NHI codes and relevant information of emergency cases to Taiwan CDC, allowing early and rapid analysis of various diseases or syndromes for any abnormal circumstances.

The purpose of this surveillance system built in the hope to early detect possible outbreaks of communicable diseases in the communities and establish epidemic trends and predictions of diseases. In 2007, the reporting disease included Influenza-like illness, enterovirus and diarrhea. Since 2008, acute hemorrhagic conjunctivitis has also included.

II. Analysis methods

About more then 170 medical care institutions transmit information of emergency cases every day instantaneously through the Internet. The case information includes patient's basic relative information, hospital code, admission time, chief complaints, disease code of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), etc. Taiwan CDC analyzes the RODS data weekly for predicting epidemic trends, and posts statistical figures on the website.

III. Analytical results

■ **Enterovirus**

Epidemic analysis:

The Enterovirus epidemic period in Taiwan is from April to October each year with an epidemic peak in May and June. The epidemic of enterovirus infection was not as serious as that in the past years. The consultation rate reported each week in 2009 varied from 0.3‰ to 8.9‰, the epidemic peaked during the 25th to 32th week, and the highest peak shown in late June. [Note: percentage of enterovirus cases = (person-time of enterovirus cases/ total person-time of emergency department cases) *1000‰]

Influenza-like illness

Epidemic analysis:

The consultation rate of influenza-like illness reported each week in 2009 ranged from 7.41% to 33.32%. Found in that year were two influenza seasons. One was the 2008~2009 influenza season peaking the 5th week of 2009. The Chinese New Year holiday fell in the 5th week when outpatient clinics were not open, thus causing a significant peak. The second influenza seasons was the pandemic influenza A (H1N1) season beginning in July of 2009. In this season, two epidemic peaks were observed, and the highest consultation rate appeared from the 36th to the 38th week of 2009. [Note: consultation rate of influenza-like illness = (person-time of influenza-like illness cases / total person-time of emergency department cases) *100%]

Diarrhea

Epidemic analysis:

The consultation rate of diarrhea reported each week in 2009 ranged from 2.71% to 10.06% with the epidemic peak in spring, and the epidemic trend was similar to that in the past years. [Note: consultation rate of diarrhea = (person-time of diarrhea cases / total person-time of emergency department cases) *100%]

Acute Hemorrhagic Conjunctivitis

Epidemic analysis:

The consultation rate of acute hemorrhagic conjunctivitis ranged from 0.45‰ to 5.16‰; the overall epidemic situation was similar with that in 2009. The Chinese New Year holiday fell in the 5th week when outpatient clinics were not open, resulting in a more significant peak of acute hemorrhagic conjunctivitis cases. [Note: consultation rate of acute hemorrhagic conjunctivitis cases = (person-time of acute hemorrhagic conjunctivitis cases/ total person-time of emergency department cases) *1000‰]

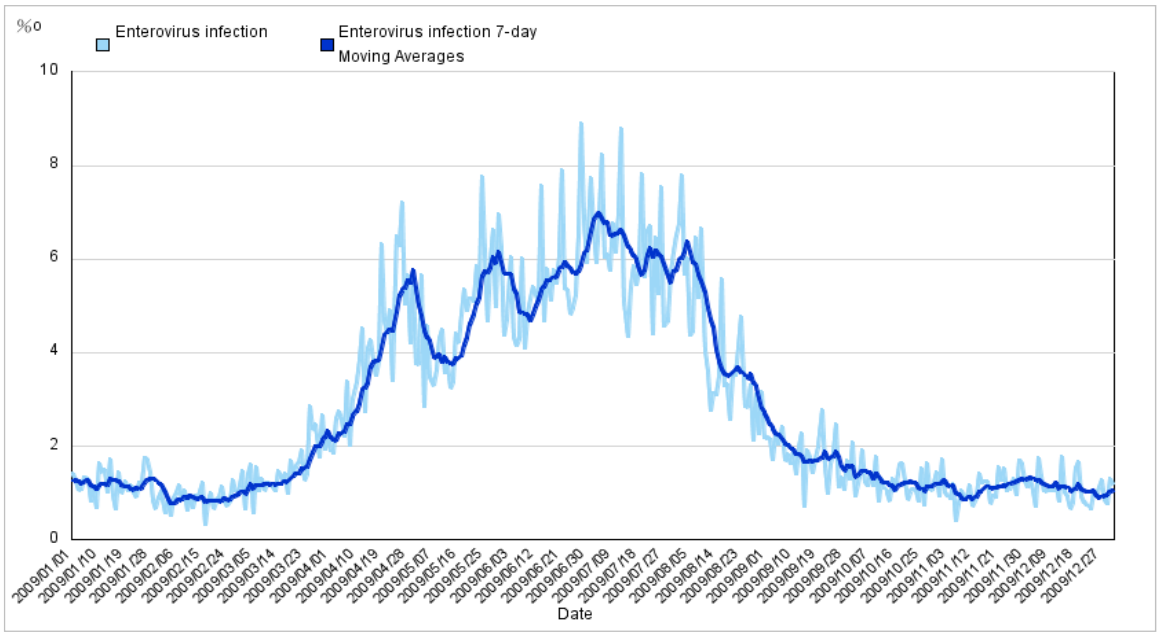


Figure 24 Enterovirus Emergency Department Daily Consultation Rate & 7-day Moving Average

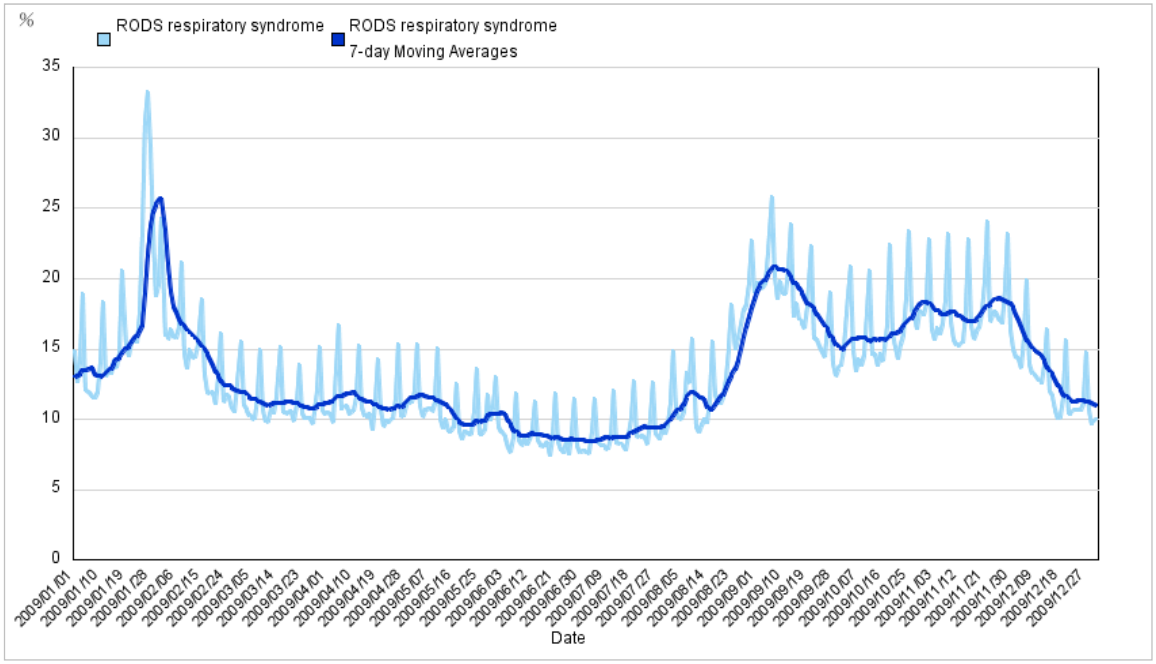


Figure 25 Respiratory Emergency Department Daily Consultation Rate & 7-day Moving Average

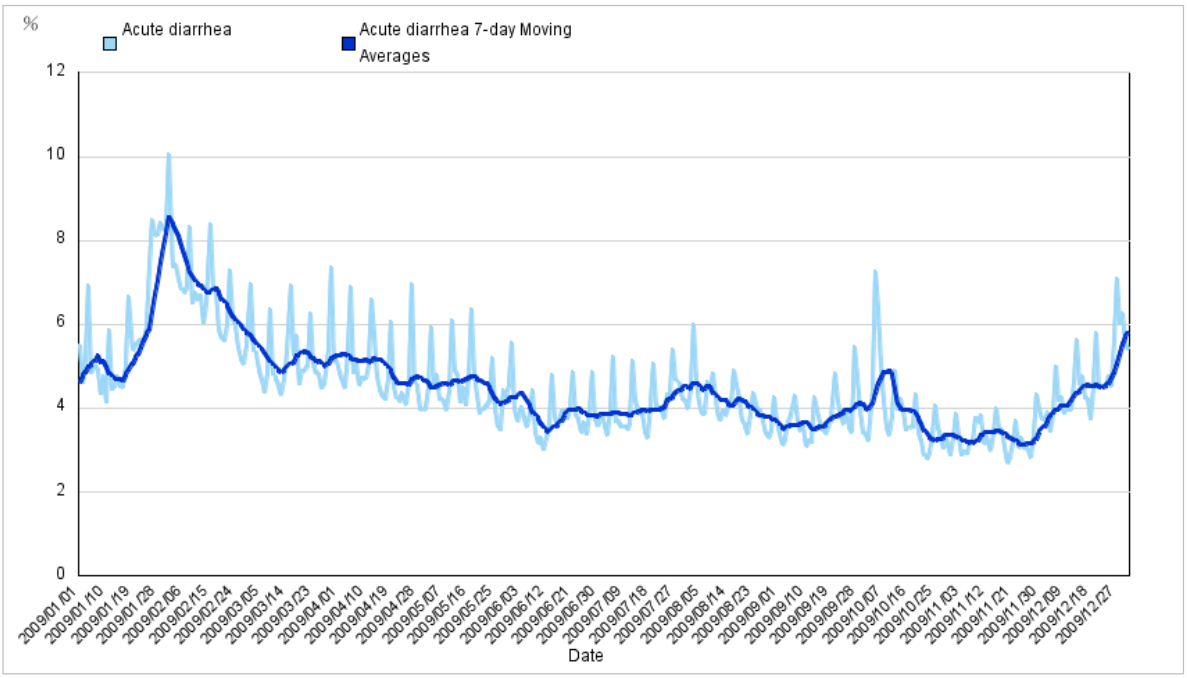


Figure 26 Acute Diarrhea Emergency Department Daily Consultation Rate & 7-day Moving Average

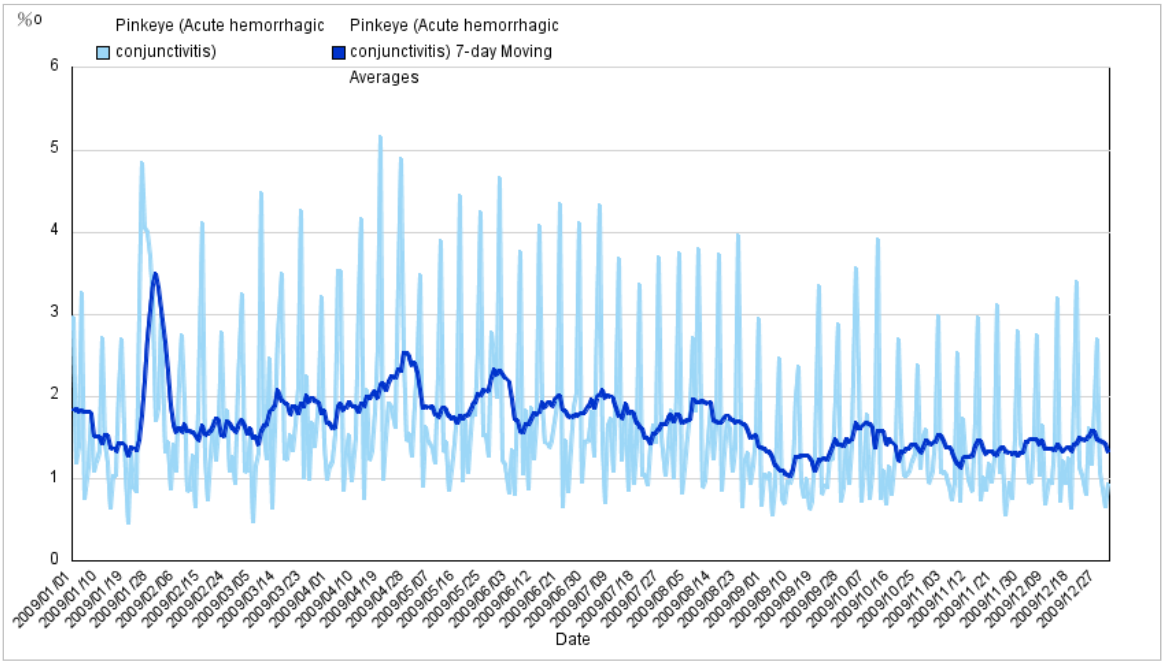


Figure 27 Acute Hemorrhagic Conjunctivitis Emergency Department Daily Consultation Rate & 7-day Moving Average

Disease Surveillance using National Health Insurance Data

I. Preface

To strengthen the surveillance capacity of specific diseases in Taiwan, Taiwan CDC collaborates with the Bureau of National Health Insurance (NHI). The NHI collects uploaded data of IC card, including the secondary information of daily outpatient, hospitalized and emergency department cases with specific diseases. Taiwan CDC conducts daily routine surveillance of specific diseases with these highly representative and complete data to assess the epidemic scale.

II. Objectives

The surveillance of NHI data aims at common diseases in Taiwan each year--influenza and enterovirus infections to monitor and analyzes relevant data of NHI outpatient cases for prompt controlling epidemic situations. Such routine surveillance together with the RODS plays a role in monitoring “mild cases” of influenza-like illness and enterovirus infections to evaluate and grasp the epidemic trends of these two diseases.

III. Analysis methods

The data that Taiwan CDC receives every day on specific diseases picking up the number of case visits with representative disease codes of International Classification of Diseases, Ninth Revision (ICD-9) include secondary data as admission date, hospital locations, age groups, codes of outpatient/ hospitalized/emergency department and so on. Since the analytical results each week fluctuate greatly, the results are derived from the 7-day moving average for obtaining relatively smooth trend before they can be used for the routine disease surveillance work.

IV. Analytical results

■ Influenza-like illness (ILI)

The number of daily influenza outpatient visits varied from 1,200 to 27,000 in 2009. This number increased in August due to the pandemic influenza A (H1N1) epidemic. There were two peaks of this epidemic, and the highest one appeared during the 46th to the 48th week (November 8~28, 2009). In the 5th week of 2009 (January 25~31, 2009) was the Chinese New Year holidays when outpatient clinics were not open, thus resulting in a decline in the number of outpatient visits.

■ Enterovirus

The number of daily enterovirus outpatient visits varied from 100 to 2,500 in 2009. This number increased in April, and declined after August. The epidemic situation of enterovirus infection was less serious than that in the past years. The highest number of enterovirus outpatient visits appeared during the 27th to the 35th week (June 28~August 29, 2009).

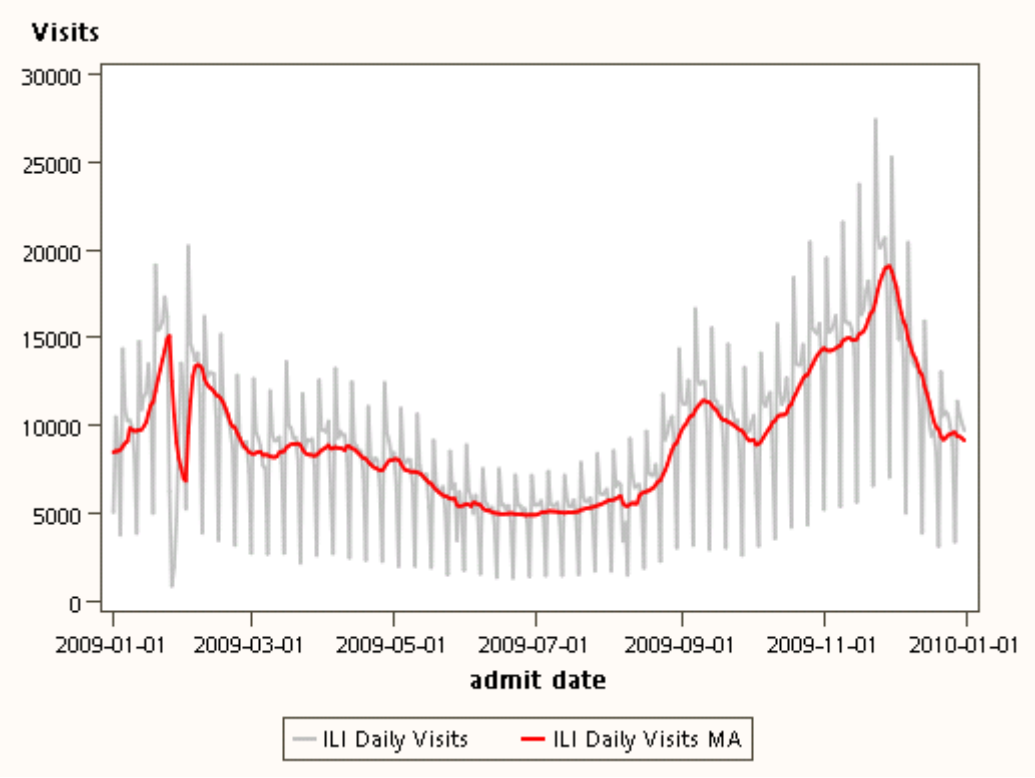


Figure 28 Daily influenza-like illness consultation rate and the 7-day moving average trend (January 1~December 31, 2009)

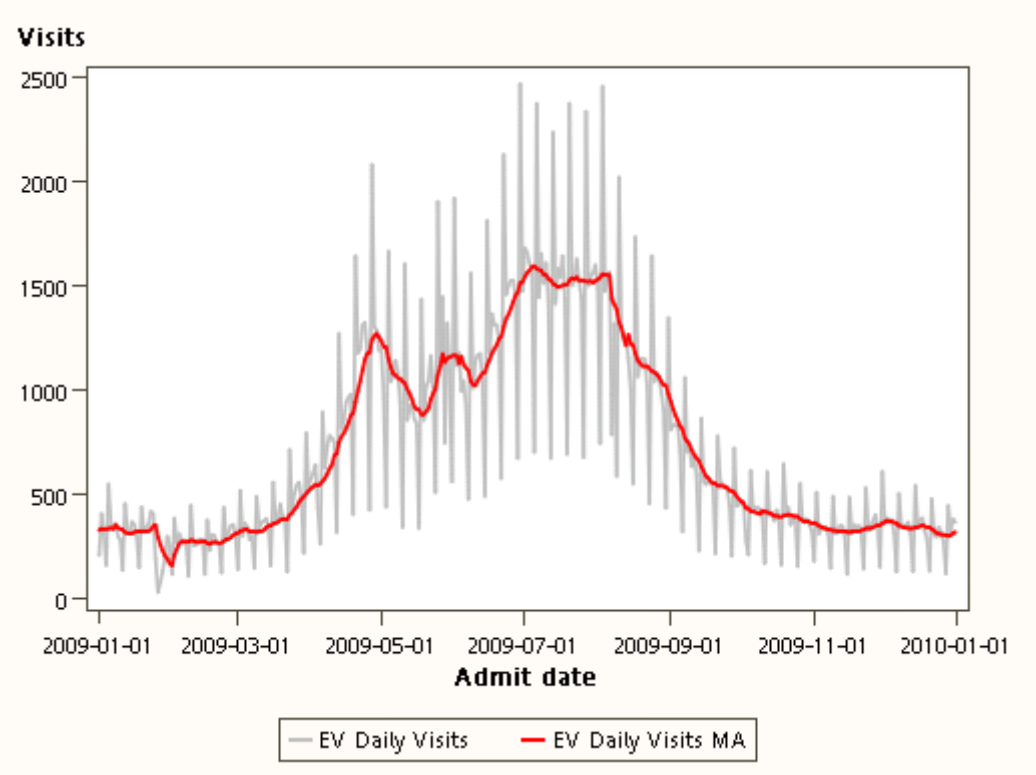


Figure 29 Daily enterovirus consultation rate and the 7-day moving average trend (January 1~December 31, 2009)

Pneumonia and Influenza Mortality Surveillance

I. Preface

Since April 2009, pandemic influenza A (H1N1) cases have been broken out worldwide. On April 26, 2009, World Health Organization (WHO) announced the definition of pandemic influenza A (H1N1). In Taiwan, the disease was immediately listed in Category 1 notifiable communicable diseases. Later, as many H1N1 patients developed only mild symptoms, WHO defined this epidemic as a “mild” one. Thus, since June 19, H1N1 was excluded from the 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.

The United States, as an example of influenza surveillance abroad divide into 5 categories: virology, outpatient, mortality, hospitalization, and geographical distribution. The mortality surveillance comprises two parts of weekly deaths attributed to pneumonia and influenza (P&I) from 122 cities and influenza-associated pediatric deaths under the age of 18 for fast track.

In rapid response to real-time surveillance and early warning , Taiwan CDC works with the Statistics Office of the DOH to analyze deaths attributed to P&I via the National Death Certificate System every day in order to monitor and command the trends of P&I related deaths.

II. Objectives

Pneumonia is a common complication of influenza. A large number of influenza deaths is caused by secondary bacterial or viral pneumonia. Therefor pnumonia should be subsumed into the surveillance and analysis of influenza relevant deaths. The P&I Deaths Surveillance established to cope with pandemic influenza A (H1N1) epidemics, together with RODS, Laboraotry Surveillance, and investigation of severe complicated influenza cases have formed four major surveillance orientations (death, mild cases, virology , and hospitalization) of Taiwan CDC. Under operation of the four orientations, it is expected to watch more closely the influenza epidemic trends and changes in Taiwan, and achieve the goals of real-time surveillance and pre-warning of epidemics.

III. Analysis methods

Taiwan CDC searches keywords of “pneumonia, commom cold or influenza” in the column of causes of death, and integrates the rules of determining causes of death, to monitor the trend of P&I deaths count weekly. Since the weekly analytical results fluctuate to a certain extent, routine surveillance work use the last 4-week moving average trend to stabilize the data.

IV. Analytical results

The surveillance data of P&I mortality revealed that the 4-week moving average trends of P&I death count had risen since the end of 2008 with the peak falling in the 6th week of 2009, and then began to decline after the 14th week of 2009. The analysis of age groups showed the highest death rate of P&I in the age above 65, accounted for 87%.

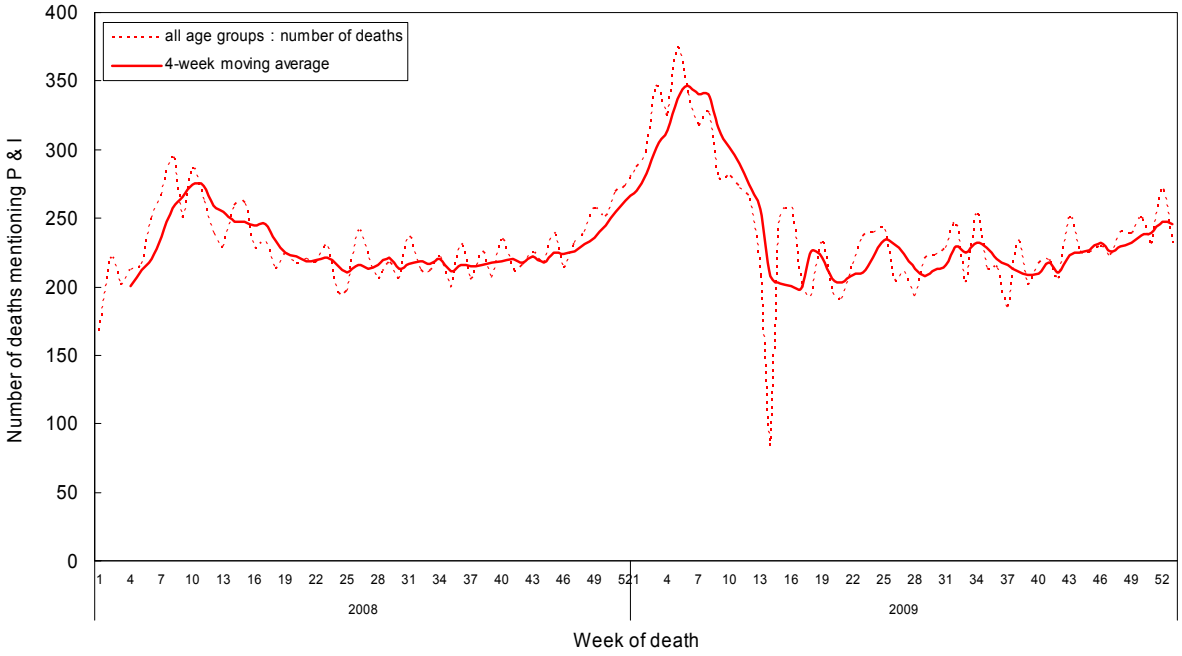


Figure 30 The surveillance trend of Pneumonia and influenza mortality

III Surveillance Reports of Selected Diseases —Republic of China (Taiwan), 2009

◎ Abbreviations and Symbols Used in Table

— No reported cases.

▪ ▪ ▪ Not under surveillance.

Measles

Since 1985, measles has been epidemic in 1985 (2,219 cases), 1988 (1,386 cases), 1989 (1,060 cases) and 1992 (264 cases); other than those four years, numbers of patients affected with the disease in each year were all below 100. In 2009, a total of 48 measles cases were confirmed (incidence rate = 0.21/100,000) -- higher than 16 confirmed cases in 2008 (incidence rate = 0.07/100,000). The measles cases in 2009 were statistically analyzed, and the results are as follow:

(1)Sex

There were 33 males (68.8%) and 15 females (31.3%), and sex ratio is 2.2:1.0.

(2) Age

Most cases were between 1-4 years of age for a total of 14 cases (7 cases at the age of 1; 5 cases at the age of 2; 1 case each at the age of 3 and 4). Another 12 patients aged less than 1 year old; 11 patients aged between 15-24; 8 patients aged between 25-39; 3 patients aged between 5-14.

Regarding the 12 cases whose age was below 1, 4 of them were 11 months old; 3 were 10 months old; 2 were 9 months old; another 2 cases were 8 months old. The remaining 1 case was 5 months old.

(3) Month of onset

The highest number of measles cases as many as 21 were reported in February, and the second highest number of the cases,13, were confirmed in April. In March, May, January, and August, 9, 3, 1, and 1 case was confirmed respectively.

(4) Residential region

Most of cases, as many as 13, occurred in Taipei County; 7 cases occurred in Tainan County; 6 cases occurred in Kaohsiung City. Then there were 4 other cases each from these cities and counties--Taoyuan County, Taichung City, Nantou County, and Tainan City, 2 other cases from Taichung County, and 1 case each from Keelung City, Miaoli County, Kaohsiung County, and Pingtung County. No confirmed cases were identified in other cities and counties.

The incidence rate of measles per 100,000 people in Nantou County was the highest, 0.75, and the second highest was in Tainan County, 0.63. The incidence rate, 0.52, in Tainan City was the third high.

(5) Imported case and country of infection

A total of 9 cases were imported—6 from Vietnam, 2 from China, and 1 from India.

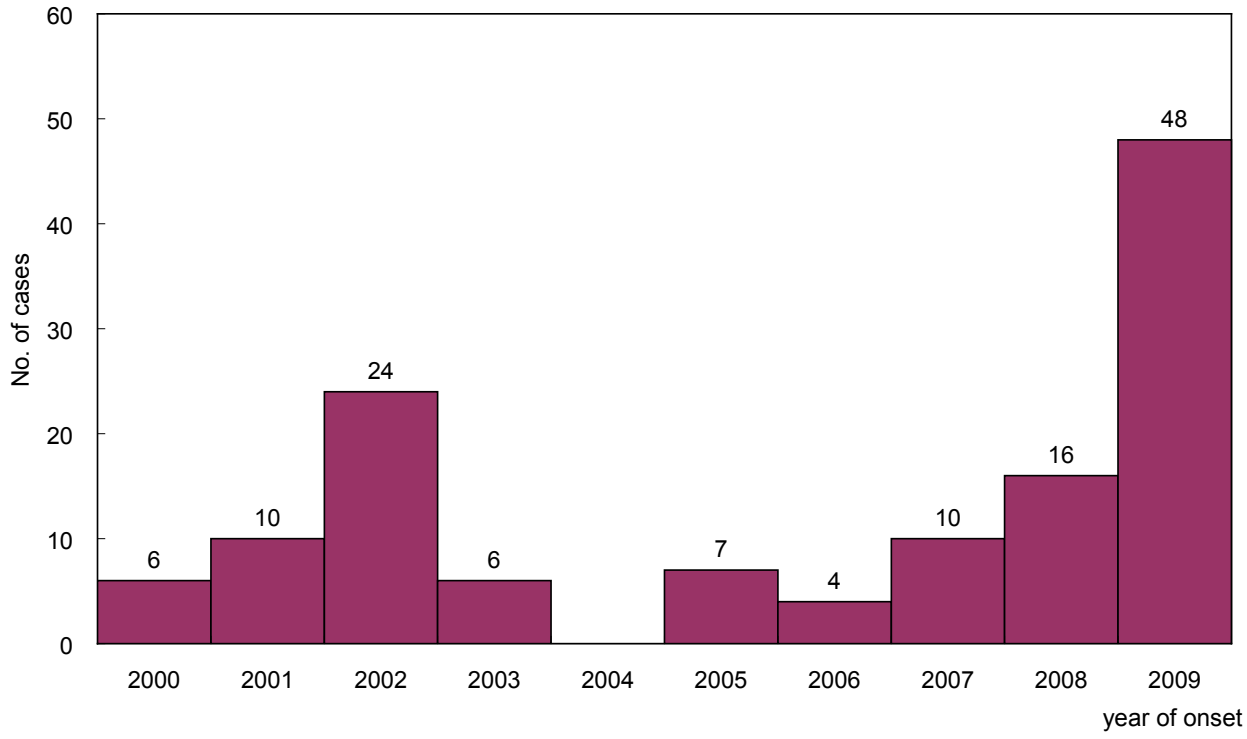


Figure 31 Number of Measles confirmed cases, 2000-2009

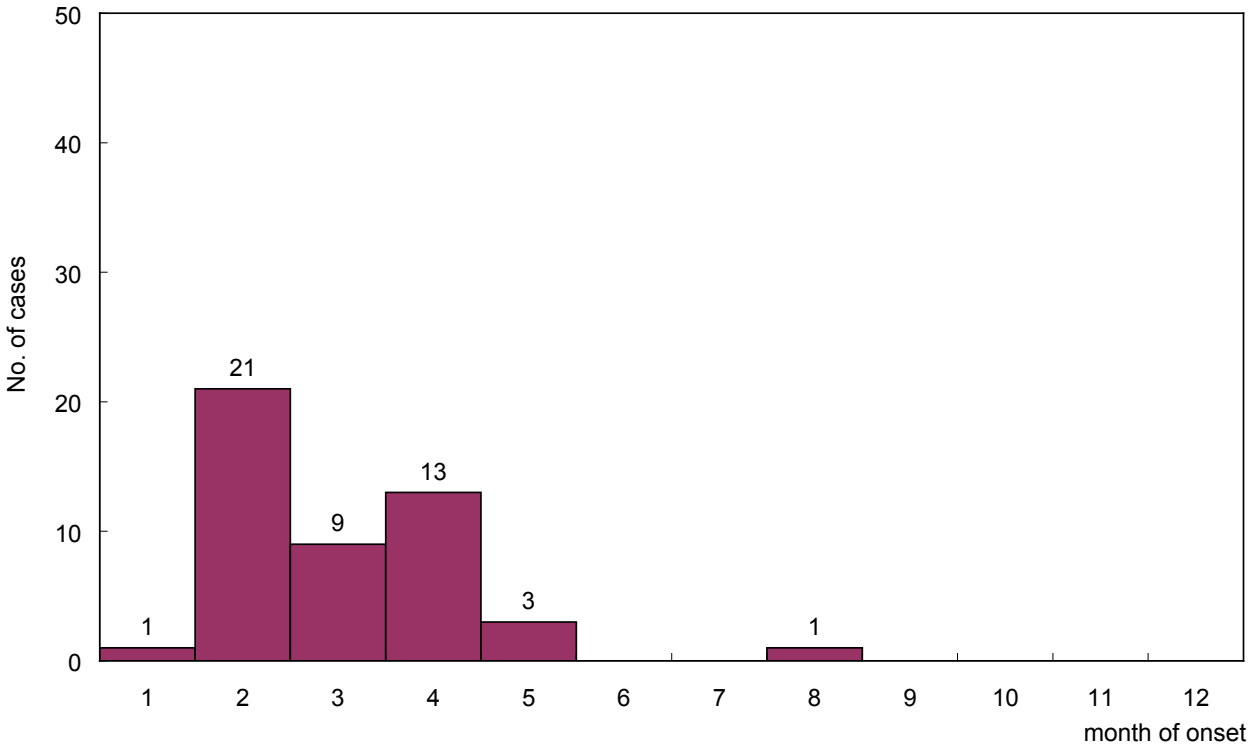


Figure 32 Number of Measles confirmed cases, 2009

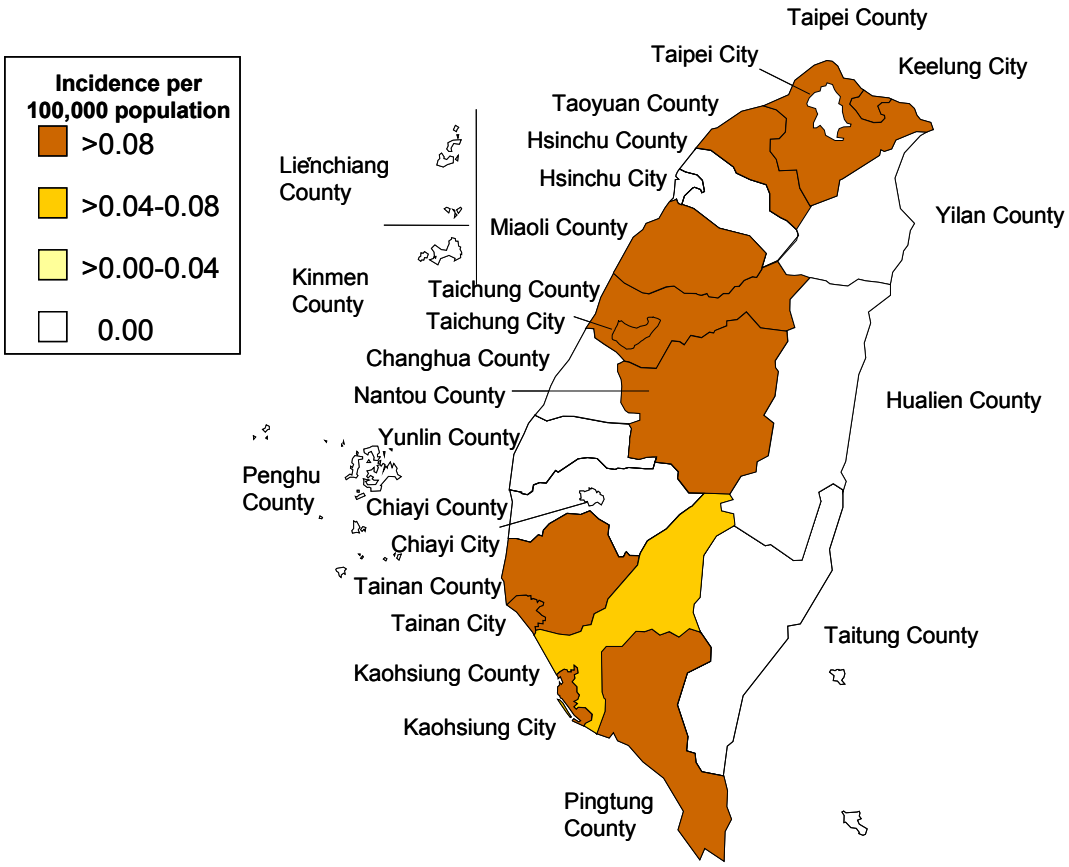


Figure 33 Geographical distribution by incidence of Measles confirmed cases, 2009

Pertussis

In 2009, a total of 90 pertussis cases were confirmed (incidence rate = 0.39/100,000)--higher than 41 confirmed cases in 2008 (incidence rate= 0.18/100,000). The pertussis cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 41 males (45.6%) and 49 females (54.4%), and sex ratio is 0.8:1.0.

(2) Age

Most cases were between 5-14 years of age for a total of 33 cases. 25 patients aged less than 1; 13 patients aged between 25-39; 8 patients aged between 40-64; 7 patients aged between 15-24; 3 patients aged between 1-4; and 1 aged 65 or above.

Regarding the 25 cases whose age was below 1 year old, 8 of them were 1 month old; 7 were 2 months old; 5 were 3 months old; 3 were younger than 1 month old; 1 was 5 months old, and one was 7 months old.

(3) Month of onset

The highest number of pertussis cases as many as 24 was reported in May, and 20 cases, the second highest number were confirmed in June. In July, February, and April, 11, 10, and 7 cases were confirmed respectively. In March and August each, 5 cases were reported; besides, 4, 3, and 1 case was respectively confirmed in January, November, and September.

(4) Residential region

The pertussis cases were found in a total of 12 counties and cities. Most cases, as many as 25, occurred in Yunlin County; 21 cases, the second highest, were from Taipei County. In Taipei City, Taoyuan County, Taichung City, Yilan County, and Miaoli County, 13, 9, 8, 4, and 3 cases were reported respectively. There were also 2 cases each confirmed in Keelung City and Hualien County, and 1 case each reported in Hsinchu County, Taichung County and Changhua County. No confirmed cases were identified in other cities and counties.

The incidence rate of pertussis per 100,000 people in Yunlin County was the highest, 3.46, and the second highest was in Yilan County, 0.87. The incidence rate, 0.75, in Taichung City was the third high.

(5) Imported cases and country of infection

There were no imported cases.

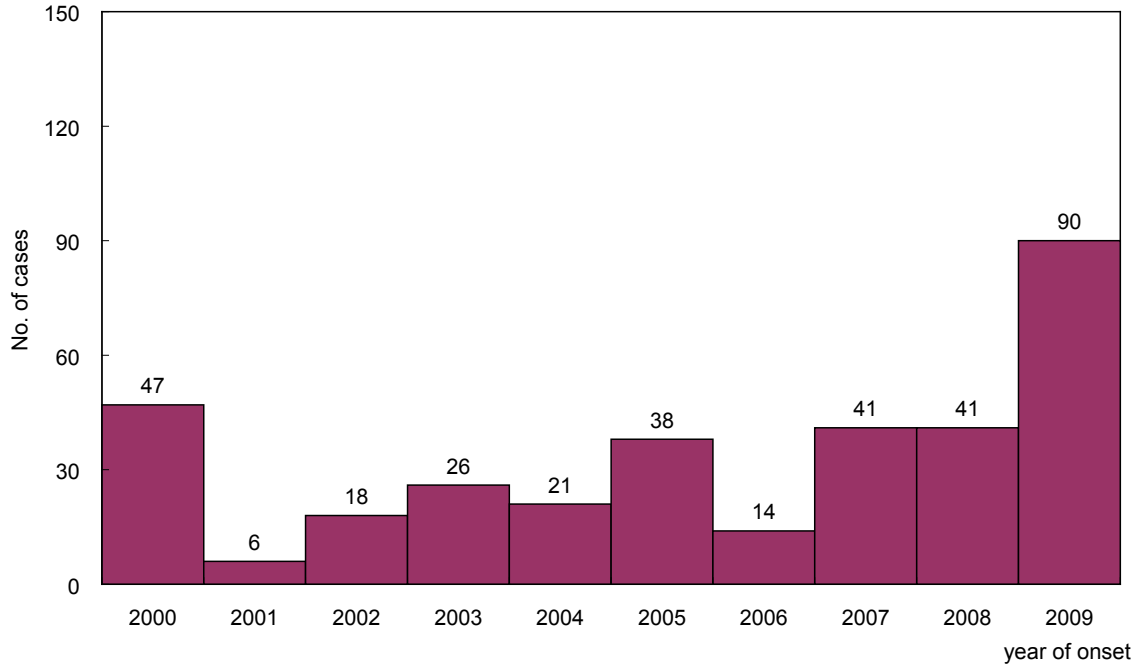


Figure 34 Number of Pertussis confirmed cases, 2000-2009

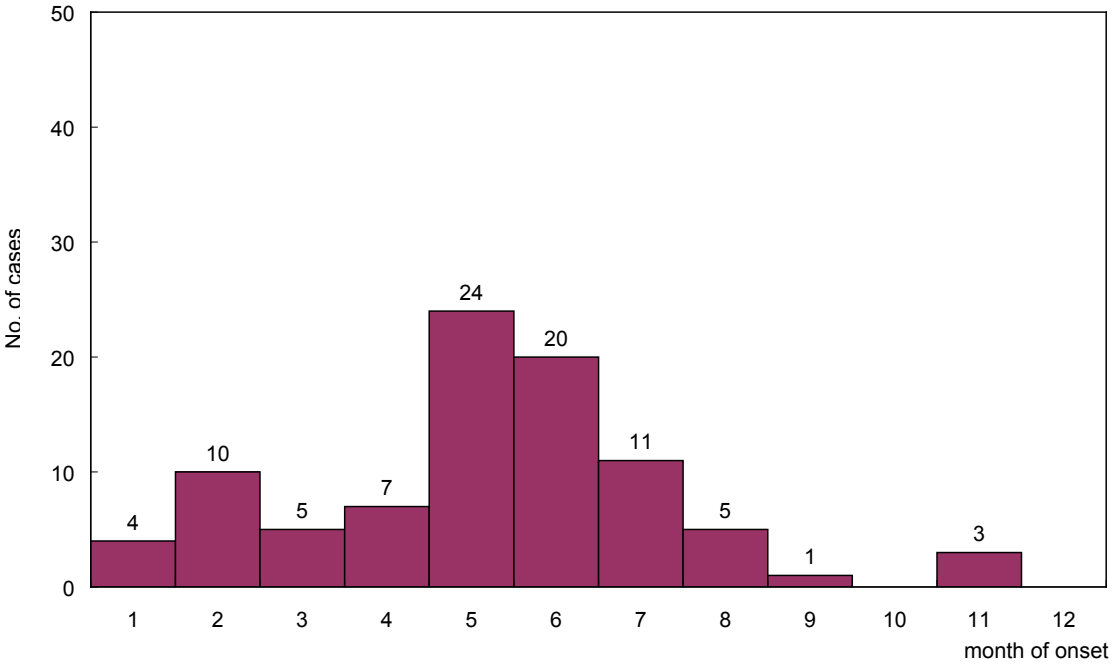


Figure 35 Number of Pertussis confirmed cases, 2009

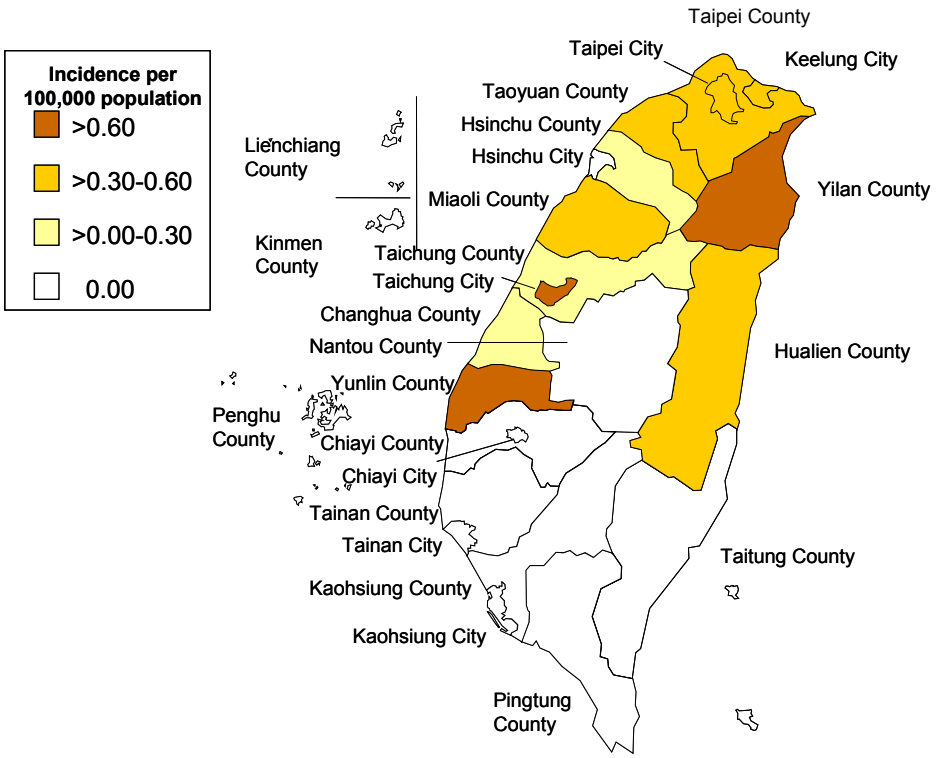


Figure 36 Geographical distribution by incidence of Pertussis confirmed cases, 2009

Meningococcal Meningitis

In 2009, 2 cases of meningococcal meningitis were confirmed (incidence rate = 0.01/100,000)--lower than 19 cases in 2008 (incidence rate = 0.08/100,000). These two cases in 2009 were statistically analyzed, and the results are as follow:

(1)Sex

These 2 cases were 1 male (50.0%) and 1 female (50.0%), and sex ratio is 1.0 : 1.0.

(2)Age

One patient was younger than 1 year old (4 months old) and the other patient was between 5-14 years of age.

(3)Month of onset

These 2 cases occurred in April and September.

(4)Residential Region

Both cases occurred in Taoyuan County (incidence rate = 0.10/100,000),and no meningococcal meningitis cases were identified in other cities and counties.

(5)Imported cases and country of infection

There were no imported cases.

(6)Serogroup

According to the laboratory testing results, both cases were infected with Neisseria meningitidis serogroup B.

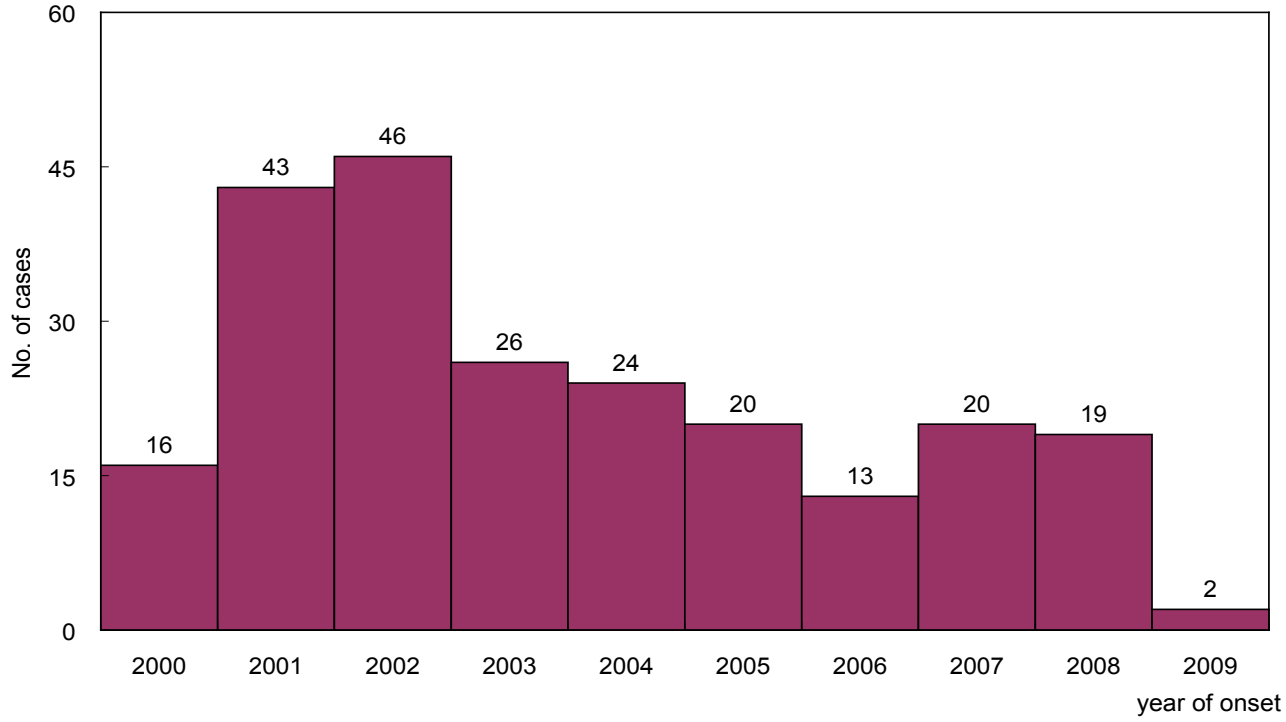


Figure 37 Number of Meningococcal Meningitis confirmed cases, 2000-2009

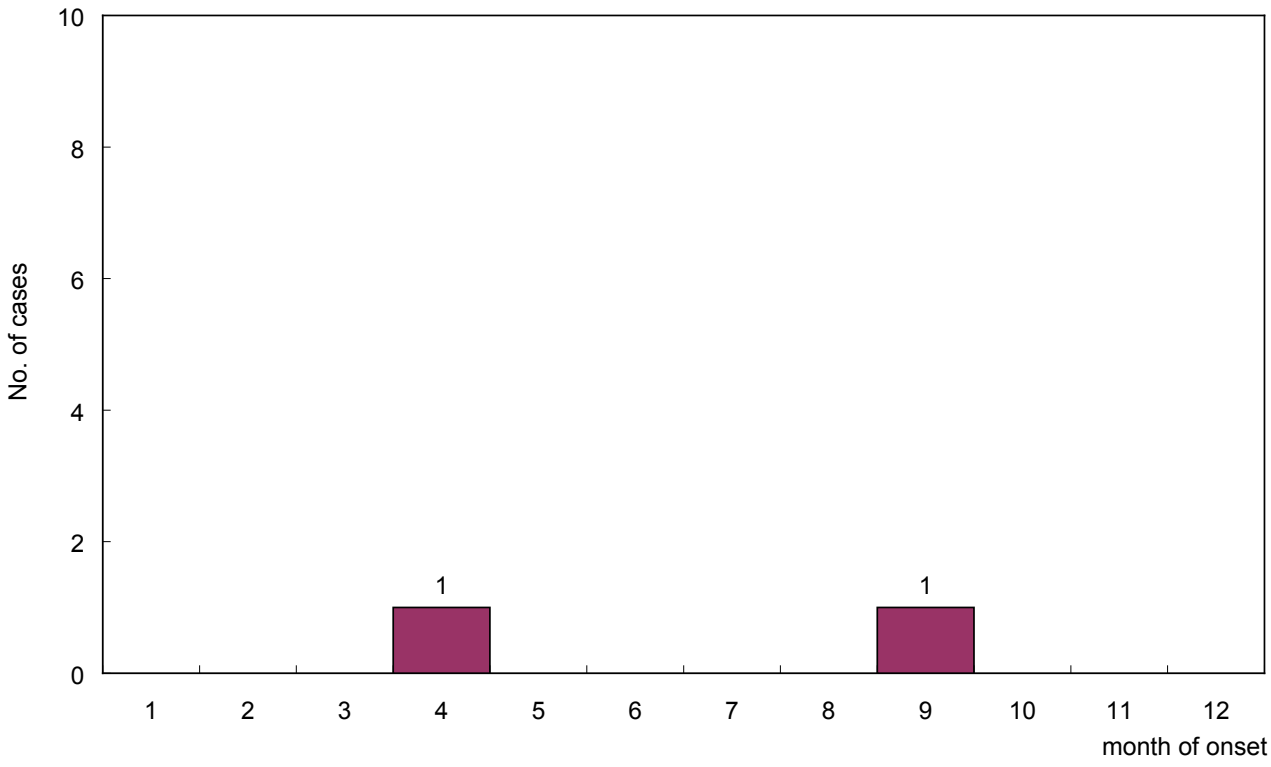


Figure 38 Number of Meningococcal Meningitis confirmed cases, 2009

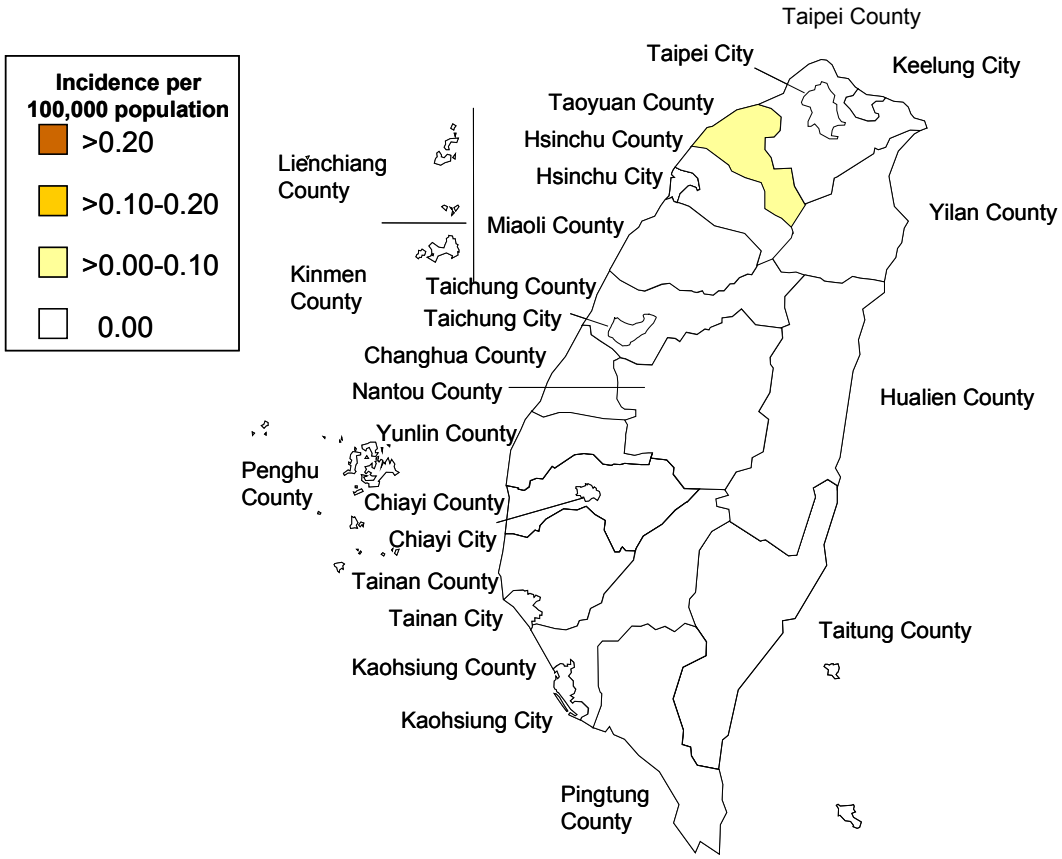


Figure 39 Geographical distribution by incidence of Meningococcal Meningitis confirmed cases, 2009

Japanese Encephalitis

In 2009, a total of 18 japanese encephalitis cases were confirmed (incidence rate = 0.08/100,000)--higher than 17 confirmed cases in 2008 (incidence rate = 0.07/100,000). The japanese encephalitis cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 13 males (72.2%) and 5 females (27.8%), and sex ratio is 2.6 : 1.0.

(2) Age

Most cases were between 40-64 years of age for a total of 11 cases; 3 patients aged 65 or above; 2 aged between 15-24; 2 aged between 25-39.

(3) Month of onset

This disease mainly occurred in summer so as many as 11 cases were reported in July. In August and October, 3 and 2 cases were confirmed respectively; 1 case was reported each in March and May.

(4) Residential Region

Up to 6 cases were reported in Hualien County; 2 cases were reported each in Taipei County, Kaohsiung City, and Pingtung County. In each of these cities and counties such as Hsinchu County, Miaoli County, Taichung County, Changhua County, Yilan County, and Taitung County, 1 case was also reported. No confirmed cases were identified in other cities and counties.

The incidence rate of japanese encephalitis per 100,000 people in Hualien County was the highest, 1.76, and the second highest was in Taitung County, 0.43. The incidence rate, 0.23, in Pingtung County was the third high.

(5) Imported cases and country of infection

Out of the total 18 cases, 1 case was imported from China

(6) Clinical symptoms

The numbers of patients reported who suffered from fever, unconsciousness or coma, headache, neck stiffness, spasm, speaking difficulty, and nausea or vomiting were respectively 18, 11, 5, 6, 2, 2, and 2.

(7) Living conditions or neighboring environment

Out of these cases with japanese encephalitis, 6, 4, and 6 patients lived close to pig farms, pigeon farms, and paddy fields respectively. 1 patient lived nearby clam breeding farms; 1 patient lived close to henhouses; 2 patients lived nearby a pond.

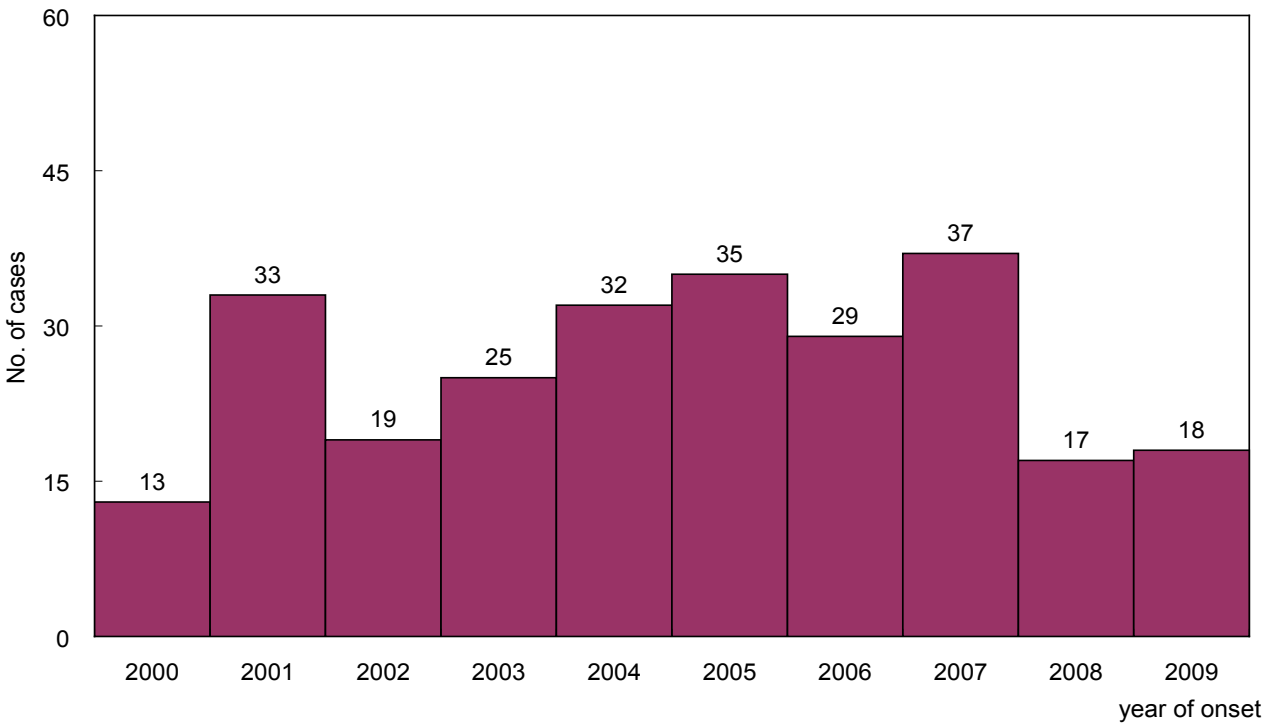


Figure 40 Number of Japanese Encephalitis confirmed cases, 2000-2009

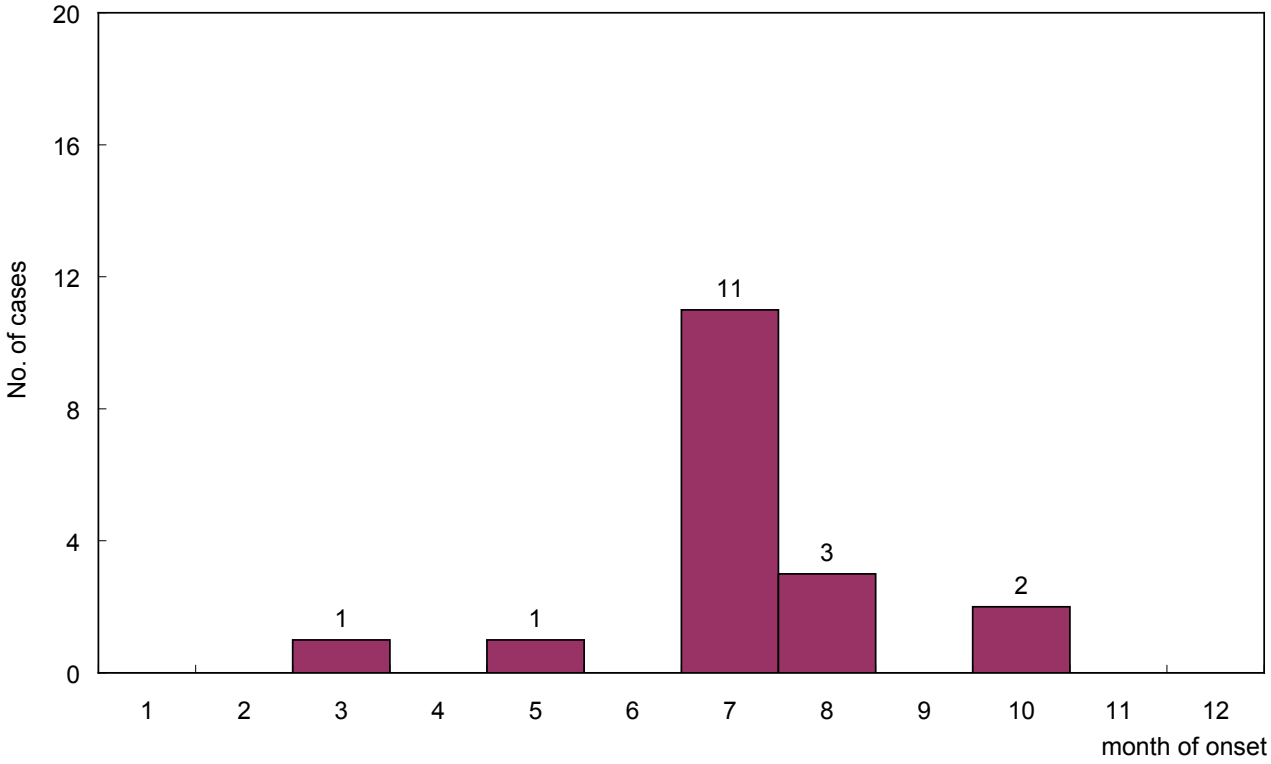


Figure 41 Number of Japanese Encephalitis confirmed cases, 2009

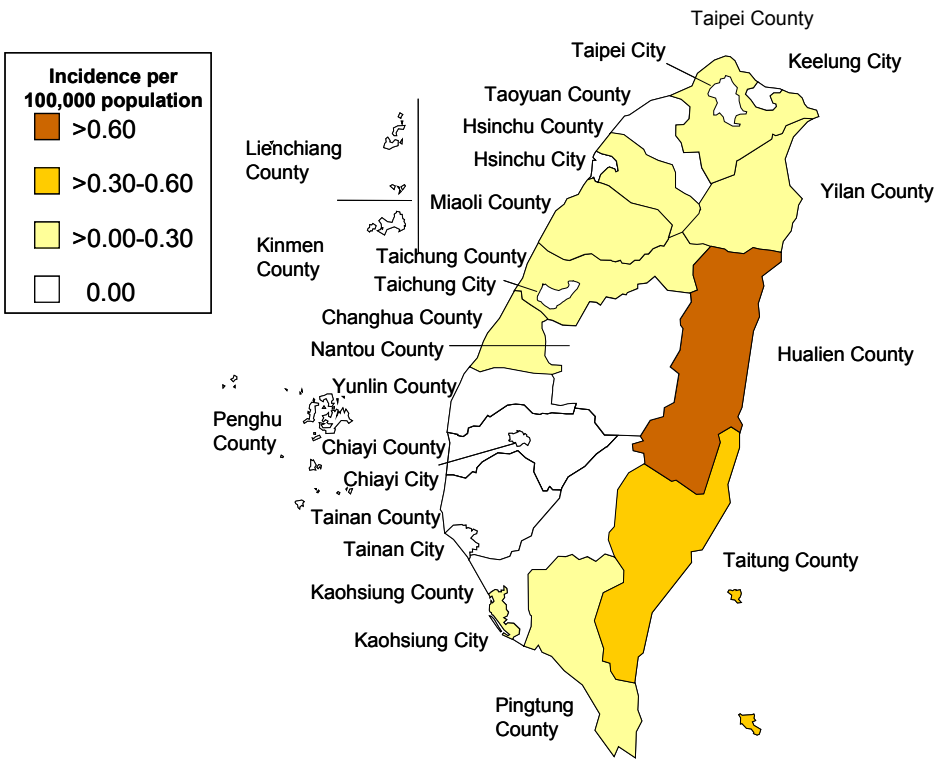


Figure 42 Geographical distribution by incidence of Japanese Encephalitis confirmed cases, 2009

Acute Hepatitis A

In 2009, a total of 234 acute hepatitis A cases were confirmed (incidence rate = 1.01/100,000)--lower than 236 confirmed cases in 2008 (incidence rate =1.03/100,000). These cases were statistically analyzed, and the results are as follow:

(1) Sex

Out of these cases, 135 were males (57.7%) and 99 (42.3%) were females, and sex ratio is 1.4 : 1.0.

(2) Age

Most cases were between 25-39 years of age for a total of 89 cases (38.0%). 74 patients aged between 40-64 (31.6%); 42 patients aged between 15-24 (18.0%); 21 patients aged 65 or above (9.0%); 8 patients aged between 5-14 (3.4%).

(3) Month of onset

This disease was contracted all year long that no specific epidemic peak month was found.

(4) Residential Region

The most cases, found in Taipei County, were 66 cases (28.2%); 44 (18.8%), 24 (10.3%), and 14 (6.0%) cases were respectively from Taipei City, Taoyuan County, and Taichung County. In Kaohsiung City, there were also 14 cases (6.0%). The cases reported in other counties and cities were all less than 10. No confirmed cases were identified in Keelung City, Chiayi City, and Lienchiang County.

The incidence rate of acute hepatitis A per 100,000 people in Kinmen County was the highest, 5.61, and the second highest was 1.71 in Taipei County. The incidence rate, 1.68 in Taipei City was the third highest.

(5) Imported cases and country of infection

Out of the total 24 imported cases, as many as 5 came from China, and 3 came from Indonesia. There were also 2 cases each from these countries such as Japan, Cambodia, the Philippines, and Vietnam; there was 1 case each from countries including the USA, Swiss, Russia, Korea, Thailand, India, Guatemala, and an indeterminable country.

(6) Clinical symptoms

The epidemiological survey data of 234 confirmed cases showed: in cases with symptoms (multiple choice), tiredness accounted for 44.4% (104 person-times), tawny urine accounted for 37.6% (88 person-times), fever accounted for 36.8% (86 person-times) ,yellowing of the white of the eye or skin accounted for 32.9% (77 person-times), nausea and vomiting accounted for 57.3% (76 person-times of nausea, 59 person-times of vomiting, totaling 135 person-times), stomach discomfort and abdominal pain accounted for 54.3% (69 person-times of stomach discomfort, 58 person-times of abdominal pain, totaling 127 person-times)

(7)Drinking water source and food habit

The epidemiological survey data of 234 confirmed cases showed that the major sources (multiple choices) of residential drinking water are tap water which accounted for 48.3% (113 person-times), packaged water accounted for 8.1% (19 person-times); in addition, spring water accounted for 5.6% (13 person-times), groundwater accounted for 2.6% (6 person-times). As for the food habit, taking food at snack booths (multiple choice) accounted for the largest proportion which was 29.5% (69 person-time), and taking nutritional lunch or take-away lunch box accounted for 20.9% (49 person-times) ,dinner party in restaurants accounted for 17.5% (41 person-times).

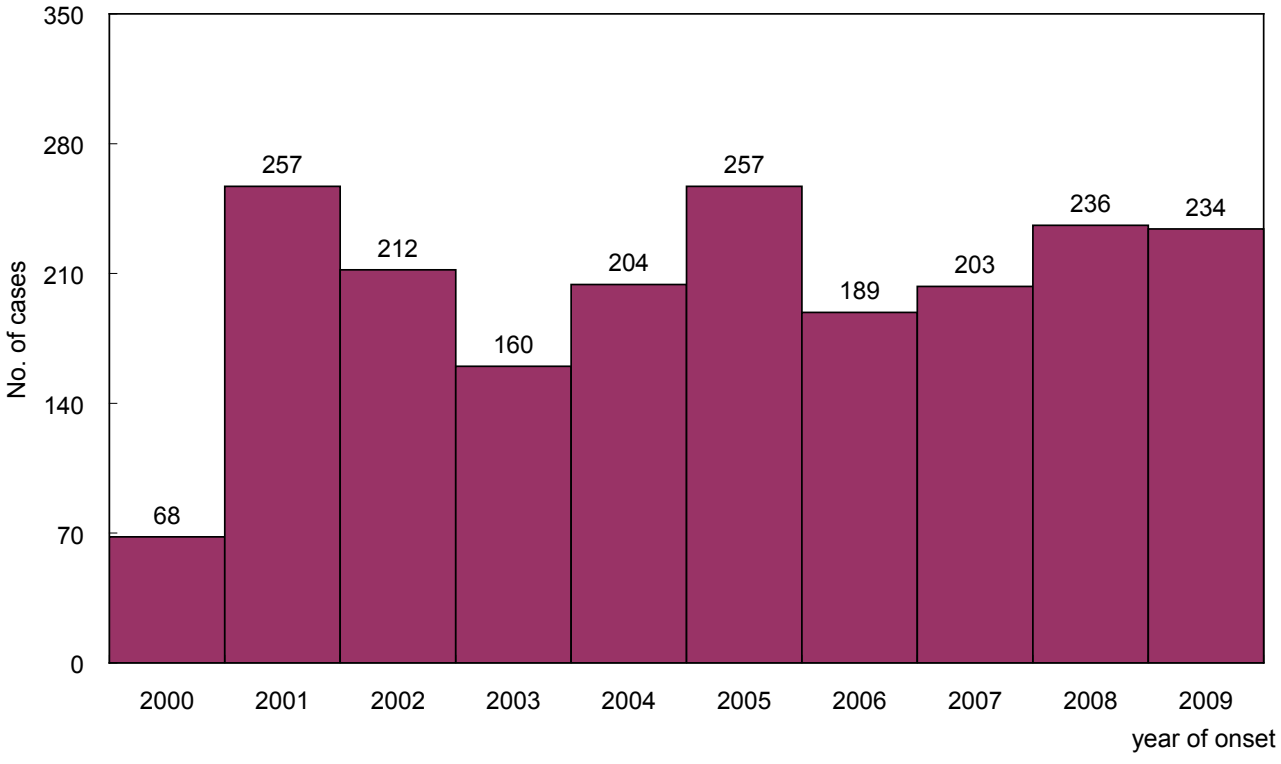


Figure 43 Number of Acute Hepatitis A confirmed cases, 2000-2009

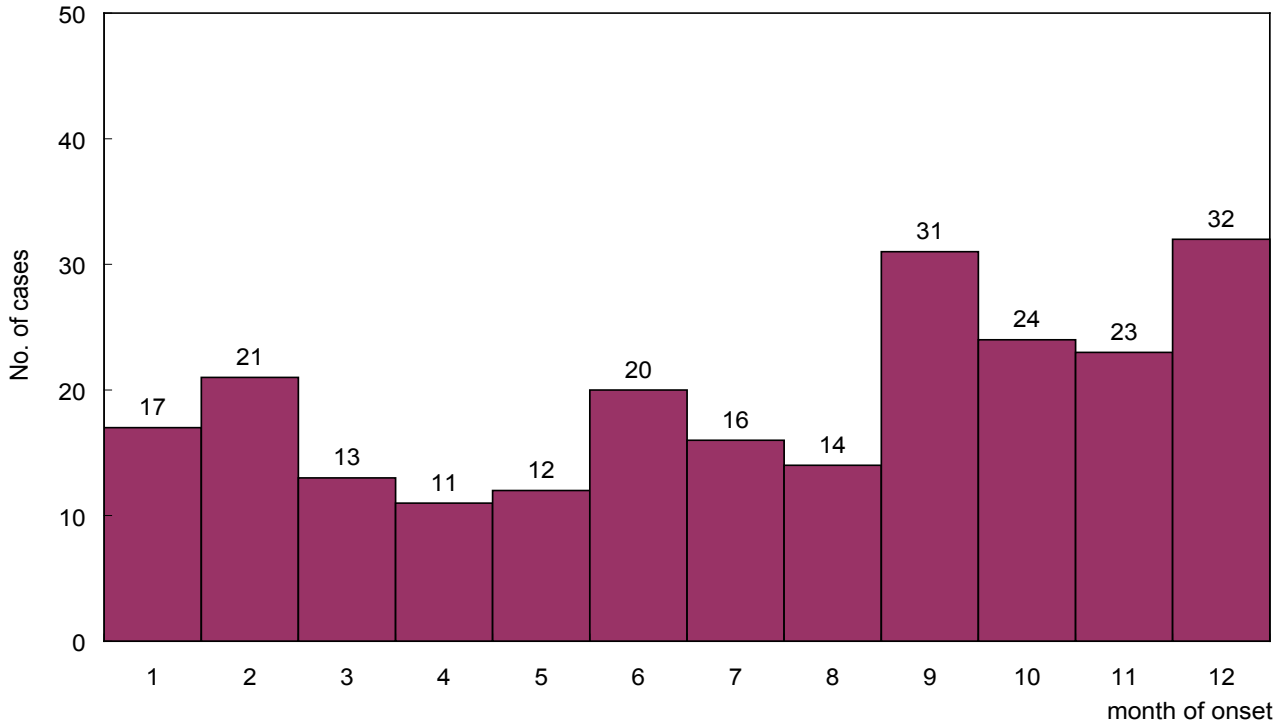


Figure 44 Number of Acute Hepatitis A confirmed cases, 2009

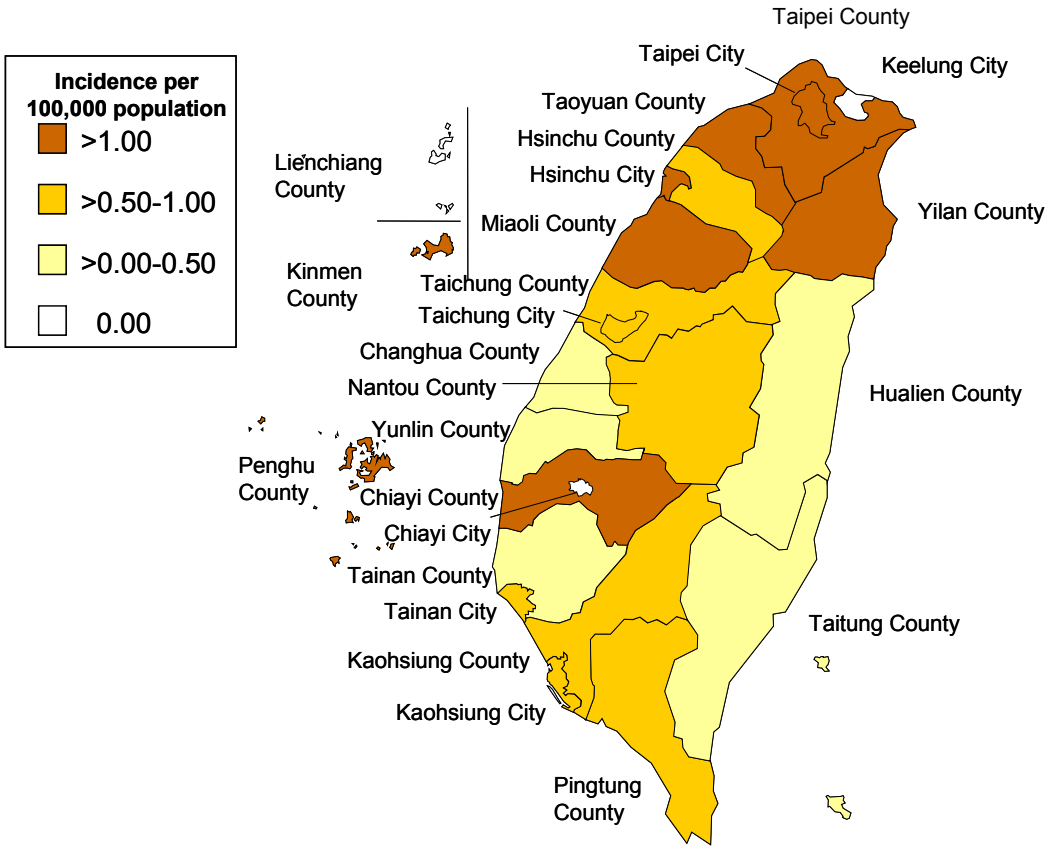


Figure 45 Geographical distribution by incidence of Acute Hepatitis A confirmed cases, 2009

Acute Hepatitis B

In 2009, a total of 152 acute hepatitis B cases were confirmed (incidence rate = 0.66/100,000)--lower than 231 confirmed cases in 2008 (incidence rate = 1.00/100,000). The acute hepatitis B cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 101 males (66.4%) and 51 females (33.6%) cases, and sex ratio is 2.0 : 1.0.

(2) Age

Most cases were between 25-39 years of age (42.1%) for a total of 64 cases. 55 patients aged between 40-64 (36.2%); 19 patients aged between 15-24 (12.5%);12 patients aged 65 or above (7.9%); 1 patient aged between 1-4; 1 patient aged between 5-14 (0.7%).

(3) Month of onset

This disease was contracted all year long that no specific epidemic peak month was found.

(4) Residential Region

Most cases, up to 42 (27.6%), occurred in Taipei County; 23 (15.1%) and 16 (10.5%) cases were from Taipei City and Taoyuan County respectively. The case numbers of this disease in other counties and cities were all less than 10. No confirmed cases were identified in Hsinchu City, Chiayi City, Chiayi County, Penghu County, Kinmen County, and Lienchiang County.

The incidence rate of acute hepatitis B per 100,000 people in Hualien County was the highest, 1.47, and the second highest was 1.09 in Taipei County. The incidence rate, 0.91, in Tainan City was the third high.

(5) Imported cases and country of infection

Out of the total 6 imported cases, 5 cases came from China and 1 case came from Japan.

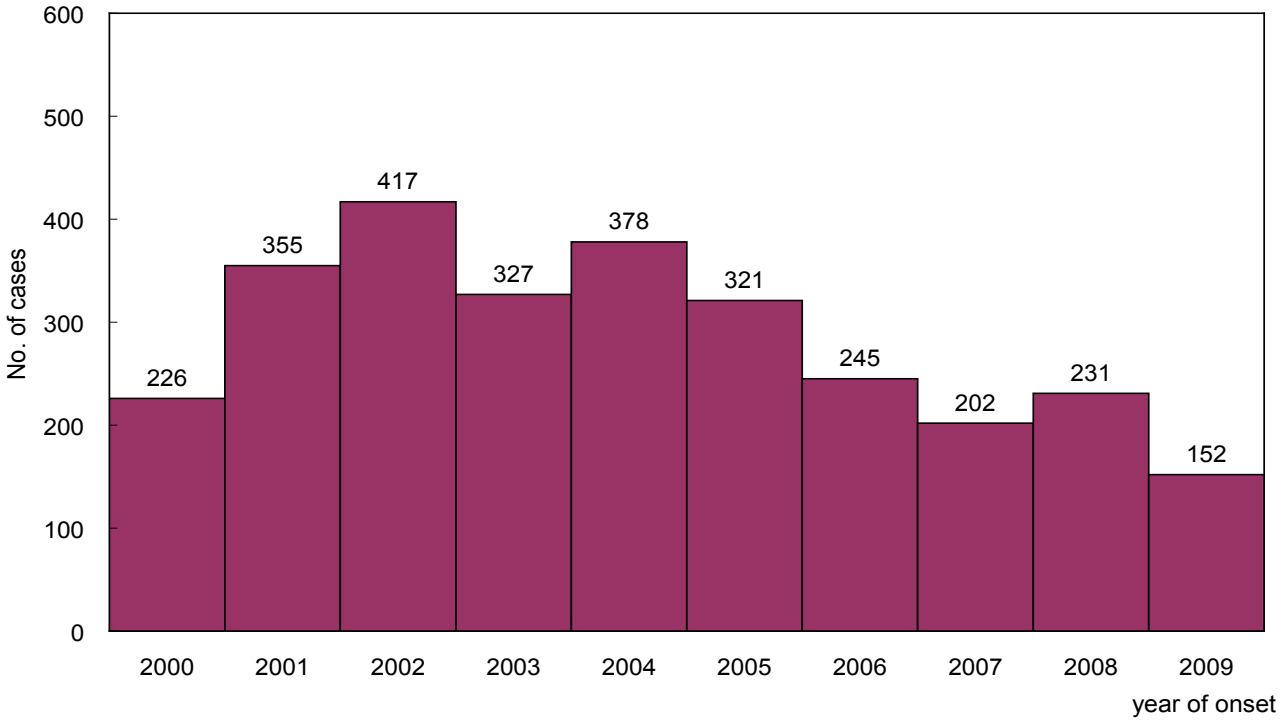


Figure 46 Number of Acute Hepatitis B confirmed cases, 2000-2009

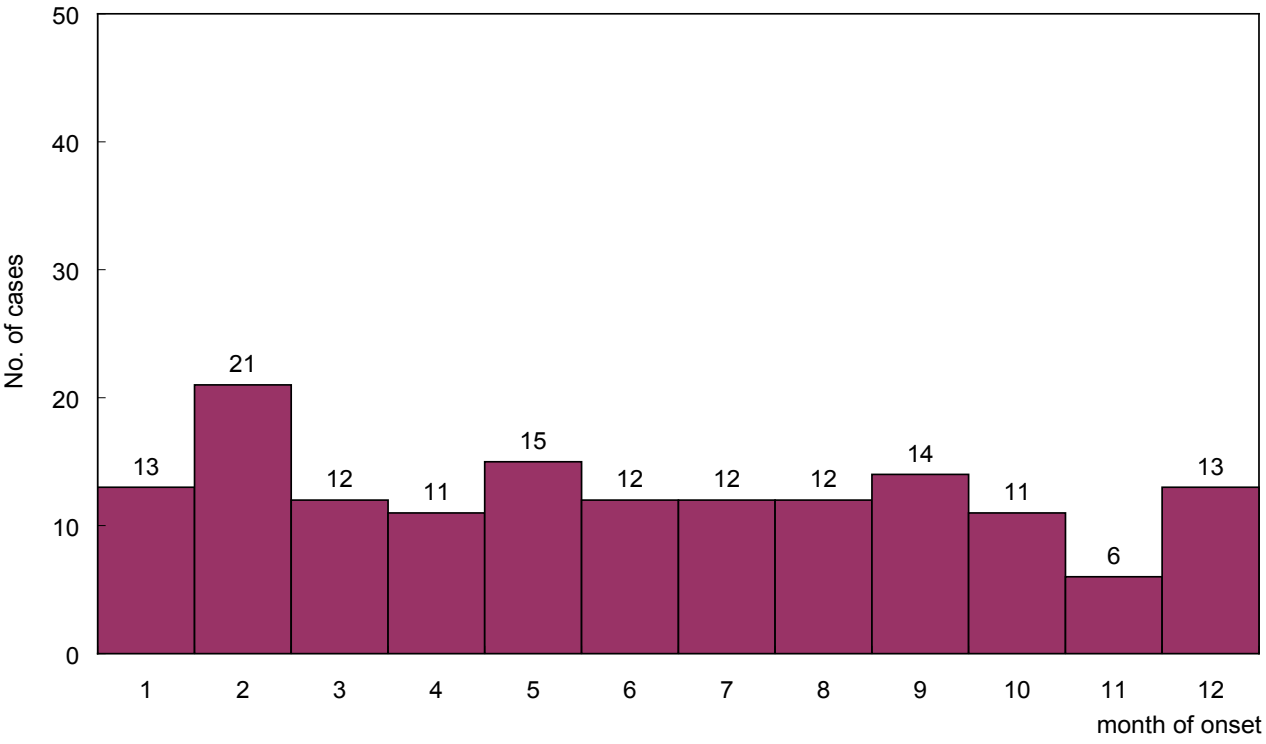


Figure 47 Number of Acute Hepatitis B confirmed cases, 2009

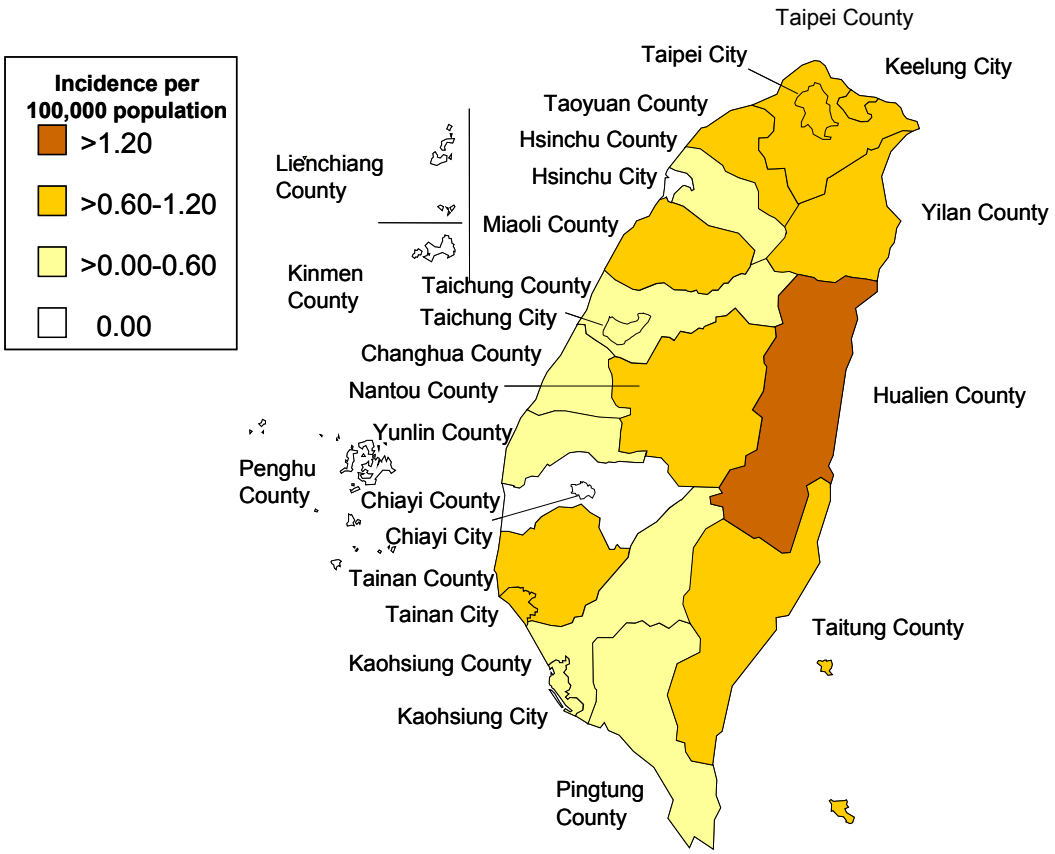


Figure 48 Geographical distribution by incidence of Acute Hepatitis B confirmed cases, 2009

Acute Hepatitis C

In 2009, a total of 131 acute hepatitis C cases were confirmed (incidence rate = 0.57/100,000)--higher than 124 confirmed cases in 2008 (incidence rate = 0.54/100,000). The acute hepatitis C cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 93 males (71.0%) and 38 females (29.0%), and sex ratio is 2.4：1.0.

(2) Age

Most cases were between 40-64 years of age for a total of 49 cases (37.4%). 48 patients aged between 25-39 (36.6%); 20 patients aged 65 or above (15.3%); 13 patients aged between 15-24 (9.9%); 1 patient aged between 5-14 (0.8%).

(3) Month of onset

This disease was contracted all year long that no specific epidemic peak month was found.

(4) Residential Region

Most cases, as many as 24 (18.3%), occurred in Taipei County, and 17 (13.0%), 11 (8.4%), and 10 (7.6%) cases were from Taipei City, Kaohsiung City, and Taoyuan County respectively. The case numbers of this disease in other counties and cities were all less than 10. No confirmed cases were identified in Penghu County and Lienchiang County.

The incidence rate of acute hepatitis C per 100,000 people in Kinmen County was the highest, 2.24, and the second highest was 0.99 in Hsinchu County. The incidence rate, 0.89, in Miaoli County was the third highest.

(5) Imported cases and country of infection

None of these cases were imported.

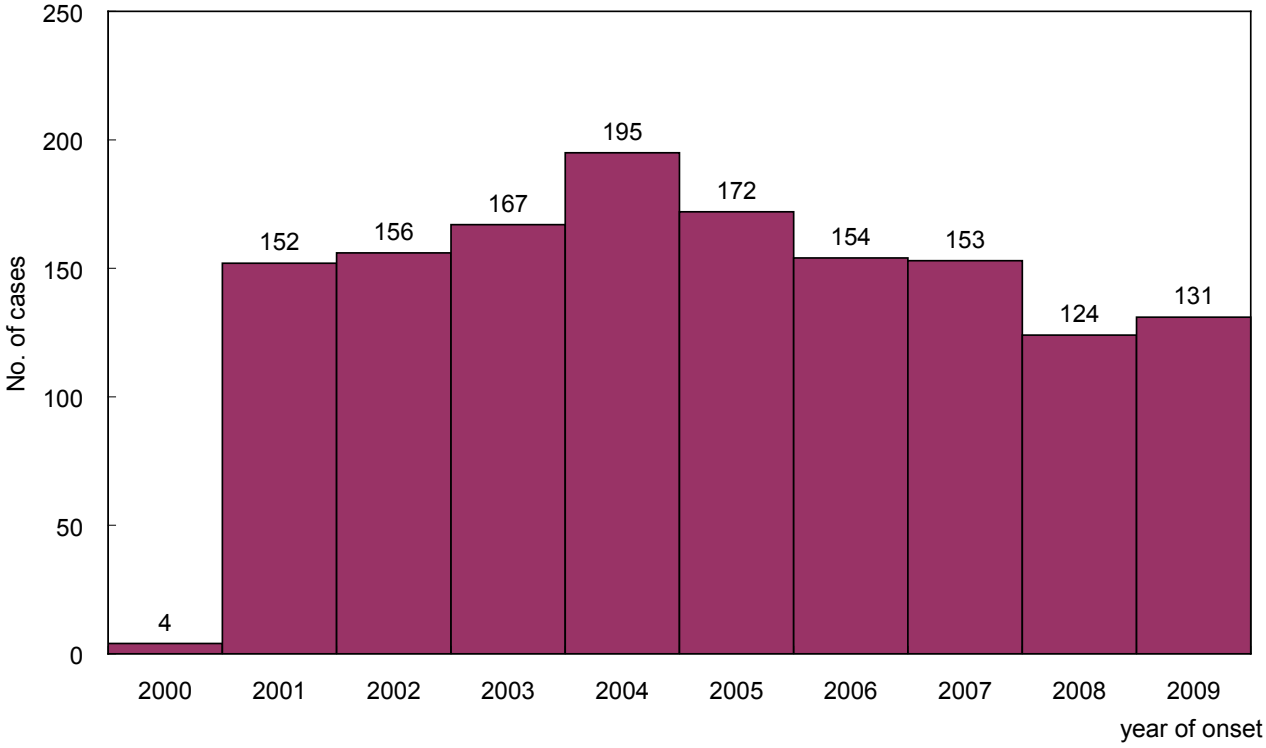


Figure 49 Number of Acute Hepatitis C confirmed cases, 2000-2009

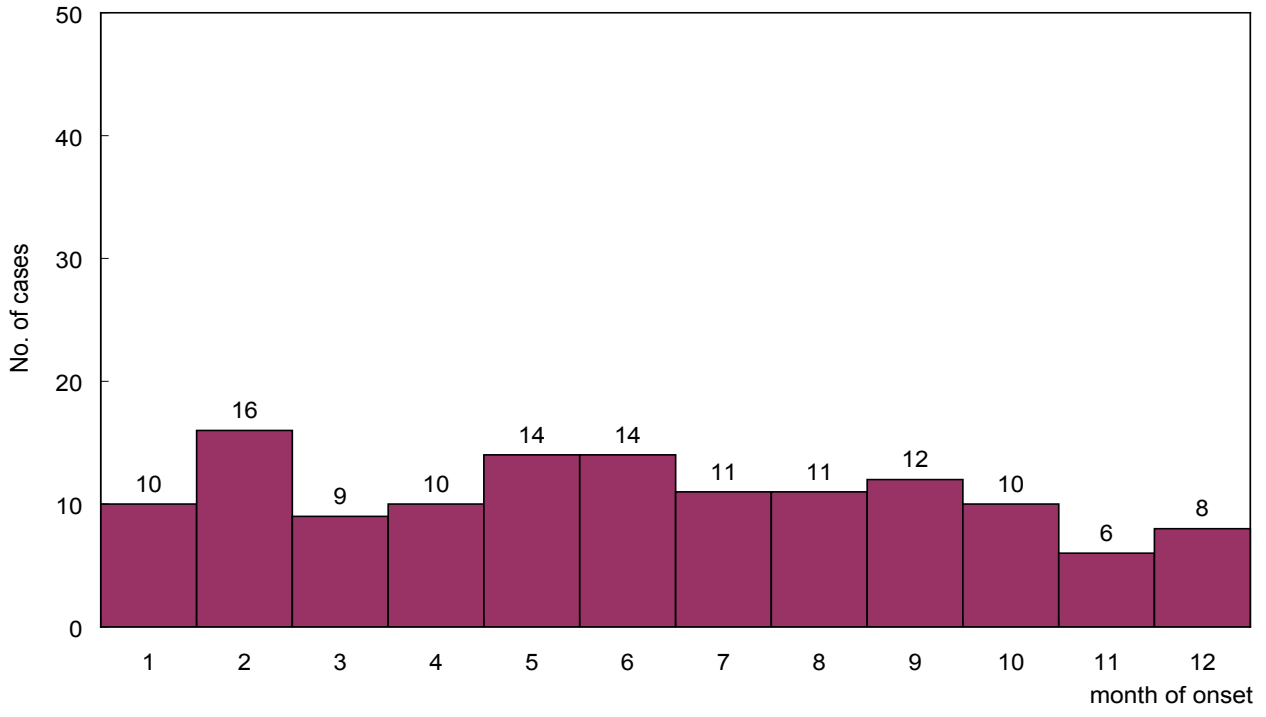


Figure 50 Number of Acute Hepatitis C confirmed cases, 2009

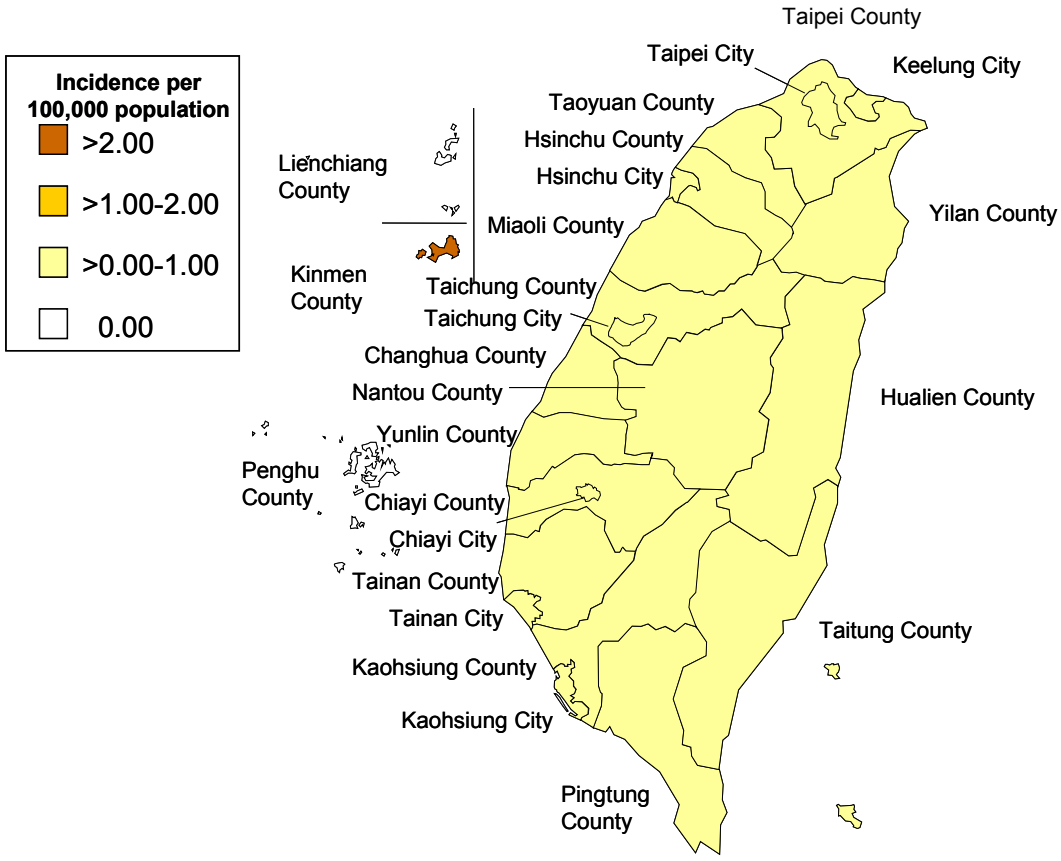


Figure 51 Geographical distribution by incidence of Acute Hepatitis C confirmed cases, 2009

Scrub Typhus

In 2009, a total of 353 scrub typhus cases were confirmed (incidence rate = 1.53/100,000)--lower than 492 confirmed cases in 2008 (incidence rate = 2.14/100,000). The scrub typhus cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 223 males (63.2%) and 130 females (36.8%),and sex ratio is 1.7 : 1.0.

(2) Age

Most cases were above 25 of age, mostly at 40-64 years old for a total of 173 cases. There were 70 patients aged between 25-39; 49 patients aged 65 or above. A total of 45 patients aged between 15-24, and 11 patients and 5 patients aged between 5-14 and 1-4.

(3) Month of onset

This disease was contracted in all months. Most patients, 71, occurred in July. In June and December, there were respectively 44 and 35 cases.

(4) Residential Region

Most cases, up to 58, occurred in Taitung County and 47 cases were reported each in Hualien County and Kinmen County. In Penghu County and Nantou County, 32 and 24 cases were confirmed respectively while in both Taipei City and Taipei County, 21 cases were reported. There were also 20 cases reported in Kaohsiung County. The case numbers of this disease in other counties and cities were all less than 20. No confirmed cases were identified in Chiayi City and Chiayi County.

The incidence rate of scrub typhus per 100,000 people in Lienchiang County was the highest, 101.66, and the second highest was 52.70 in Kinmen County. The incidence rate, 33.77, in Penghu County was the third highest. The incidence rates in Taitung County and Hualien County were respectively 24.98 and 13.77. The incidence rates in the remaining cities and counties other than the above were all lower than 10.00.

(5) Imported cases and country of infection

There was 1 imported case from Cambodia.

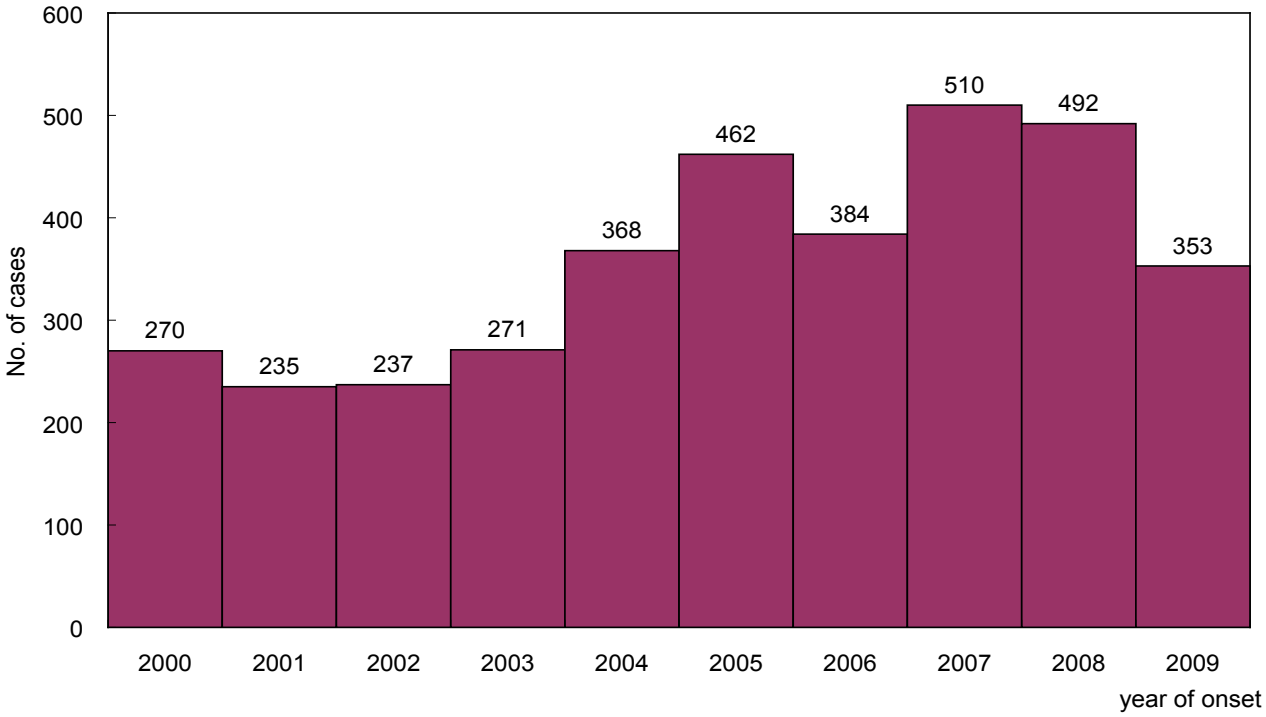


Figure 52 Number of Scrub Typhus confirmed cases, 2000-2009

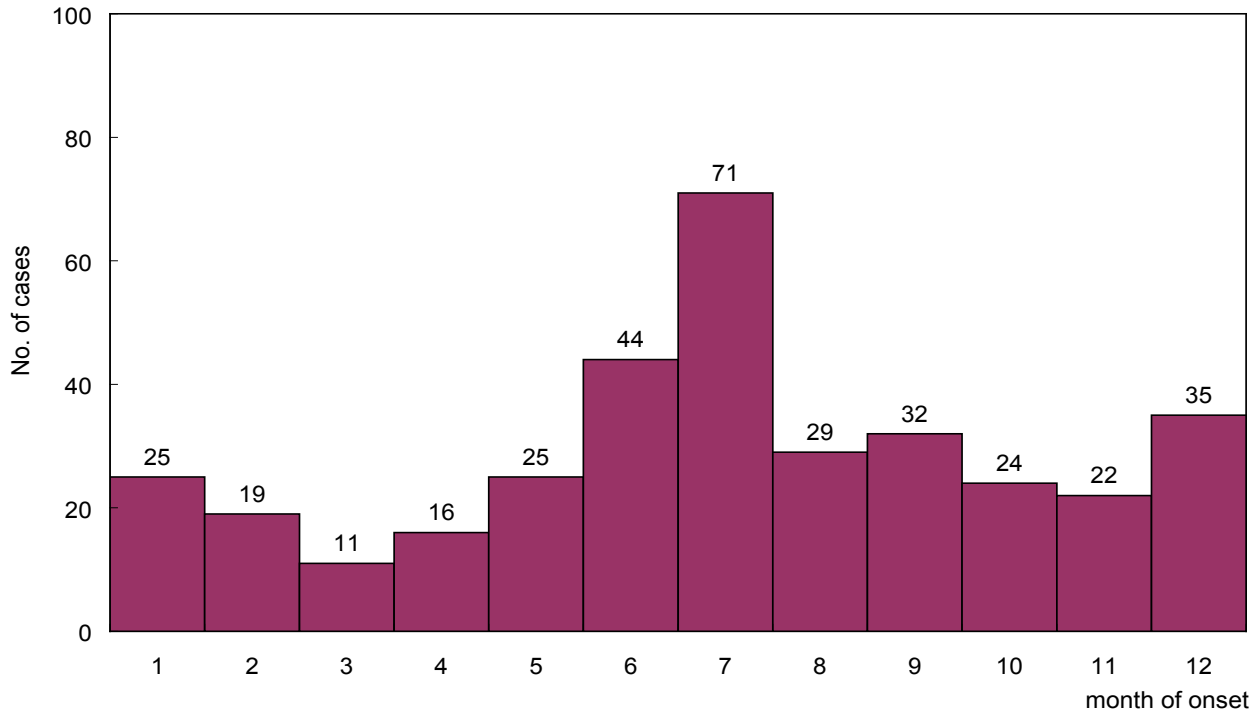


Figure 53 Number of Scrub Typhus confirmed cases, 2009

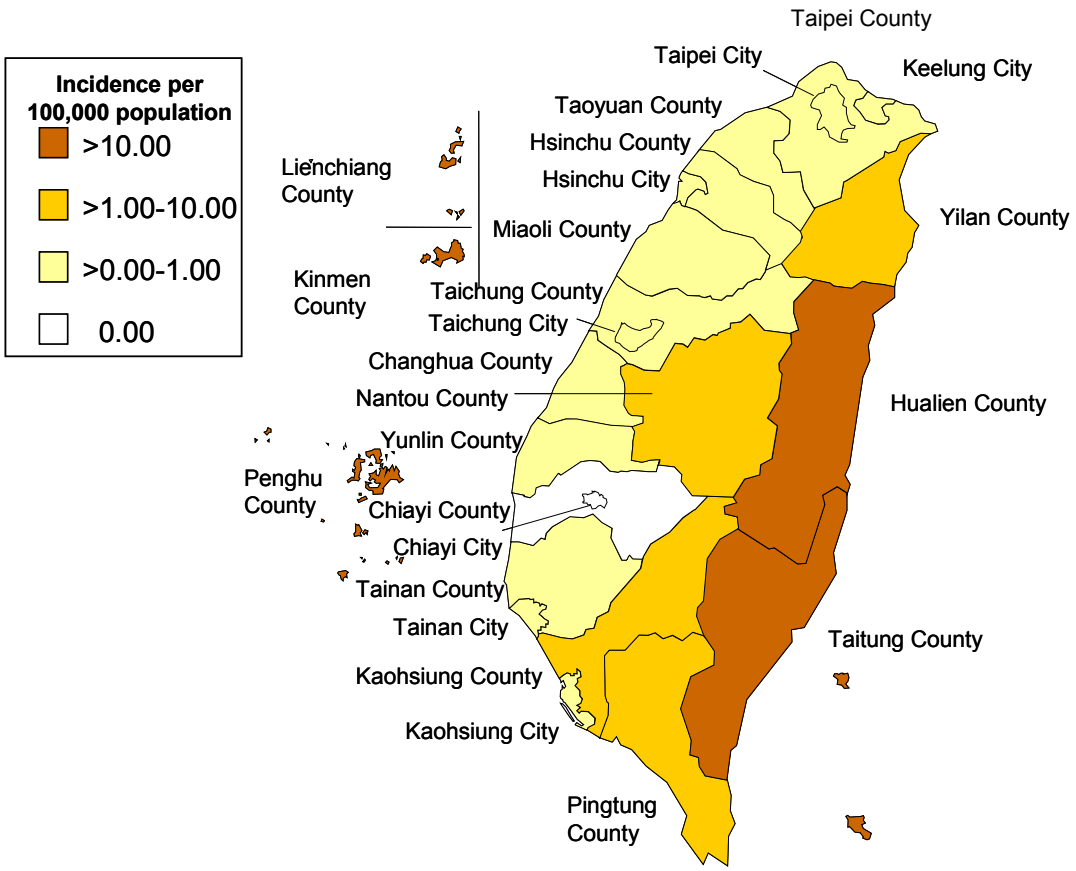


Figure 54 Geographical distribution by incidence of Scrub Typhus confirmed cases, 2009

Legionellosis

In 2009, a total of 84 legionellosis cases were confirmed (incidence rate = 0.36/100,000) --higher than 69 confirmed cases in 2008 (incidence rate = 0.30/100,000). The legionellosis cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 63 males (75.0%) and 21 females (25.0%) cases, and sex ratio is 3.0 : 1.0.

(2) Age

Most cases were elderly 65 years of age or more for a total of 43 cases. 39 patients aged between 40-64; 1 patient aged between 15-24; 1 patient aged between 25-39.

(3) Month of onset

Cases of this disease were reported in all months though most cases, 10, occurred in August. 9 cases were reported each in September and October; 8 cases were reported each in July, November and December; 7 cases were confirmed each in March and April.The numbers of the cases in January, February, May, and June were all 5 or less.

(4) Residential Region

The number of the cases was the highest in Taipei City and Taipei County, each with 17 cases reported. In Changhua County, 12 cases were confirmed; in Tainan City and Taoyuan County, 7 and 6 cases were reported respectively. The numbers of cases in other cities and counties were all 5 or less. No confirmed cases were identified in Keelung City, Miaoli County, Chiayi City, Chiayi County, Yilan County, Taitung County, Penghu County, Kinmen County, and Lienchiang County.

The incidence rate of legionellosis per 100,000 people was the highest in Chuanghua County and Tainan City,0.91. The incidence rate in Taipei City, 0.65, was the third high.

(5) Imported cases and country of infection

Both 2 imported cases came from China.

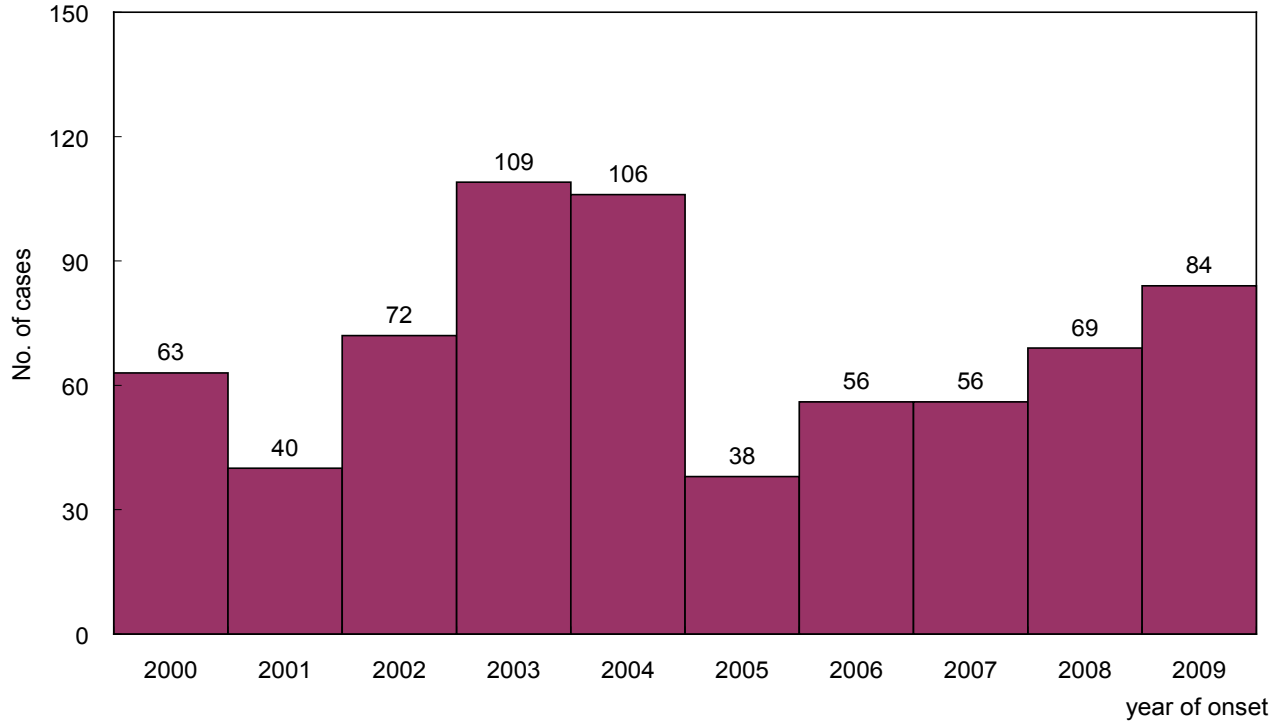


Figure 55 Number of Legionellosis confirmed cases, 2000-2009

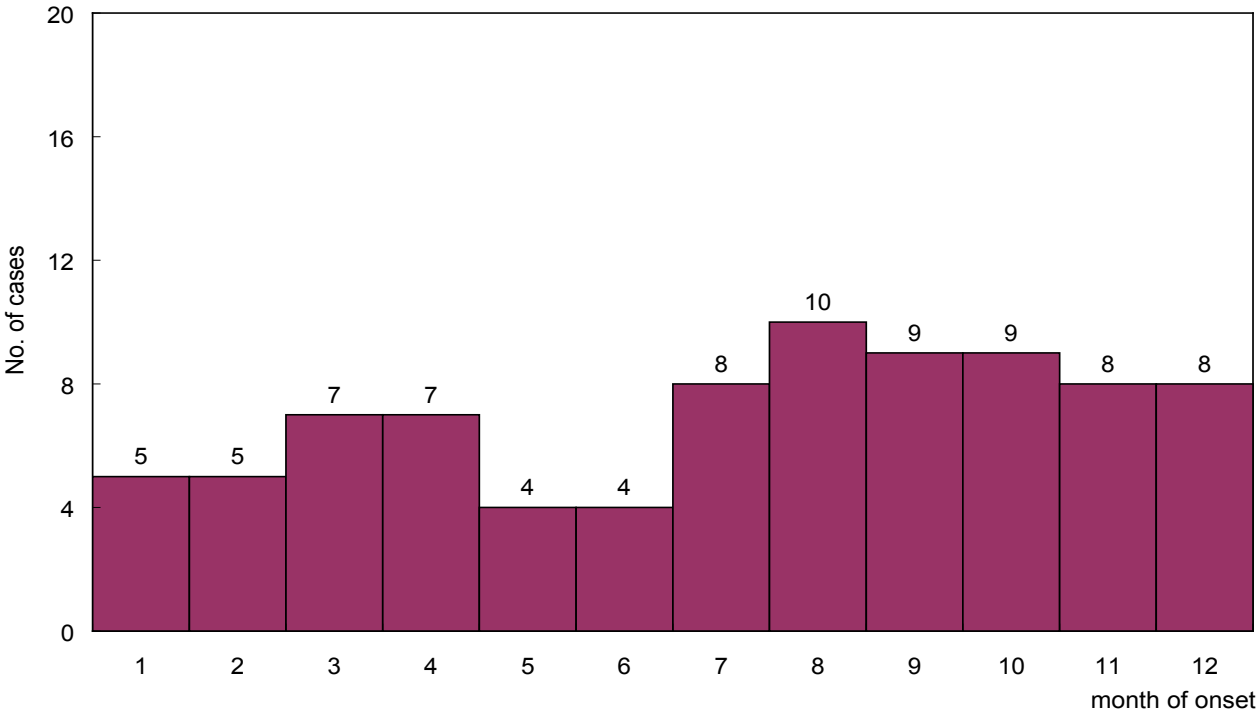


Figure 56 Number of Legionellosis confirmed cases, 2009

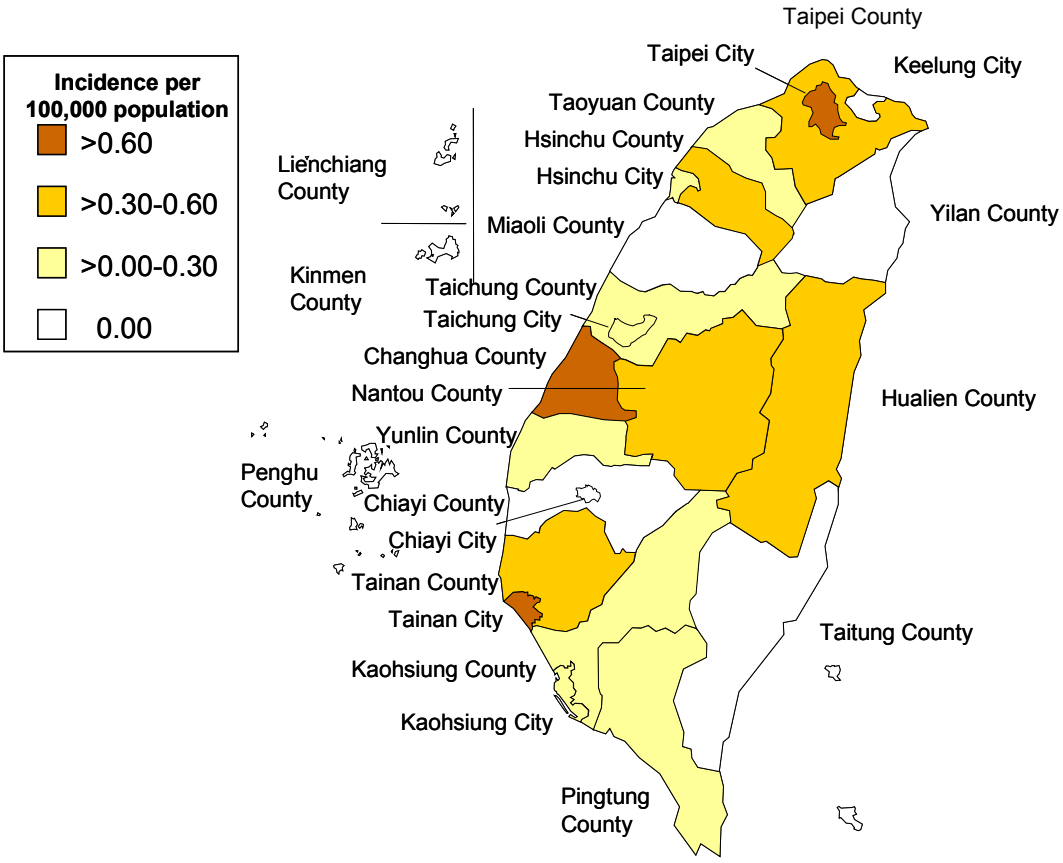


Figure 57 Geographical distribution by incidence of Legionellosis confirmed cases, 2009

Dengue Fever

In 2009, a total of 1,052 dengue fever cases were confirmed (incidence rate = 4.56/100,000)--higher than 714 confirmed cases in 2008 (incidence rate = 3.10/100,000).

There were 11 cases of dengue hemorrhagic fever/dengue shock syndrome (incidence rate = 0.05/100,000)—also higher than 5 cases confirmed in 2008 (incidence rate = 0.02/100,000).

Out of the total dengue fever confirmed cases in 2009, 204 were imported and 848 were indigenous. The 11 confirmed cases of dengue hemorrhagic fever/dengue shock syndrome were all indigenous (9 cases resided in Kaohsiung City, and 1 case each in Kaohsiung County and Pingtung County). These cases were statistically analyzed, and the results are as follow:

(1) Sex

Out of the total 204 imported cases, 125 were males (61.3%) and 79 were females (38.7%), and sex ratio is 1.6: 1.0.

Out of the 848 indigenous cases, 392 were males (46.2%) and 456 were females (53.8%), and sex ratio is 0.9: 1.0.

(2) Age

Out of the 204 imported cases, the numbers of cases at 1-4, 5-14, 15-24, 25-39, 40-64, and 65 years of age or more were respectively 4 (2.0%), 16 (7.8%), 20 (9.8%), 80 (39.2%), 75 (36.8%), and 9 (4.4%).

Out of the 848 indigenous cases, the numbers of case at 1-4, 5-14, 15-24, 25-39,40-64, and 65 years of age or more were respectively 3 (0.4%), 40 (4.7%), 85 (10.0%), 184 (21.7%), 397 (46.8%), and 139 (16.4%).

(3) Month of onset

A total of 204 imported cases were reported in all months, while more than 20 cases were reported each in June, July, August, and January. The highest number of cases was found in August for a total of 28 cases (13.7%); the number of cases in July was the second highest for 26 cases (12.7%). In June and January, the numbers of cases were respectively 23 (11.3%) and 22 (10.8%). The numbers of cases in other months were between 10-19 except that there're only 9 cases in March.

Out of the 848 indigenous cases, occurrences were found in all months except for January, February, April, May, and June. From October to December, the case numbers were all higher than 100; the highest number of cases was 358 (42.2%) reported in November, followed by 208 (24.5%)

cases in December, 170 (20.0%) cases in October, 61 cases in August, 43 cases in September, 7 cases in July, and 1 case in March.

(4) Residential Region

The 204 imported cases came from 22 counties and cities, including 34 cases in Taoyuan County, 30 cases each in Taipei City and Taipei County, 13 cases each in Changhua County and Kaohsiung City, 12 cases each in Taichung City, Taichung County and Kaohsiung County, 7 cases in Hsinchu County, and 6 cases in Tainan City. The case numbers in the remaining cities and counties were 5 or less. No confirmed cases were identified in Chiayi City, Taitung County, and Lienchiang County.

The 848 indigenous cases came from 10 cities and counties--623 cases in Kaohsiung City, 125 cases in Kaohsiung County, 76 cases in Pingtung County, 10 cases in Changhua County, 8 cases in Tainan City, 2 cases in Tainan County, and 1 case in each of Taipei County, Taoyuan County, Chiayi County, and Taitung County.

The confirmed case incidence rate of this disease was the highest in Kaohsiung City, 41.66, followed by 11.02 in Kaohsiung County and 9.17 in Pingtung County.

(5) Imported cases and country of infection

Most of the 204 imported cases, 73 (35.8%), were from Indonesia, followed by 61 cases from Vietnam (29.9%), 22 cases from Thailand (10.8%), 19 cases from the Philippines (9.3%), 8 cases from Cambodia (3.9%), 6 cases from India (2.9%), 5 cases from Myanmar (2.5%), 3 cases from Malaysia (1.5%), 2 cases each from Singapore and Pakistan (1.0%), 1 case each from Bangladesh and Sri Lanka, and 1 case of unknown origin (0.5%).

(6) Virus type

Out of the 204 imported cases, 52 cases were positive to dengue virus type 1; 42 patients were affected with type 2; 24 cases with type 3. The number of cases found positive to type 4 was 15. The virus types of the remaining 71 cases could not be determined.

As for the 848 indigenous cases, the numbers of cases due to types 1, 2, 3, and 4 were respectively 1, 33, 338, and 0. The virus types of the remaining 476 cases could not be determined.

(7) Clinical symptoms

Among the 1,052 confirmed cases, 1,017 developed clinical symptoms, and 35 cases were infected without any symptoms. Only 9 out of 204 imported cases had no symptoms, and 26 out of the 848 indigenous cases were infected but with no symptoms.

Table 25 Virus type and infection source of Dengue Fever confirmed case, 2009

Virus type/ infection source	DEN-1	DEN-2	DEN-3	DEN-4	Undetermined	Total
Indonesia	8	15	11	11	28	73
Vietnam	30	7	5	-	19	61
Thailand	10	2	1	-	9	22
Philippines	1	7	4	2	5	19
Cambodia	-	7	-	-	1	8
India	-	2	-	-	4	6
Myanmar	-	-	1	1	3	5
Malaysia	2	-	1	-	-	3
Singapore	-	2	-	-	-	2
Pakistan	-	-	-	1	1	2
Sri Lanka	1	-	-	-	-	1
Bangladesh	-	-	1	-	-	1
Taiwan	1	33	338	-	476	848
Unknown	-	-	-	-	1	1
Total	53	75	362	15	547	1,052

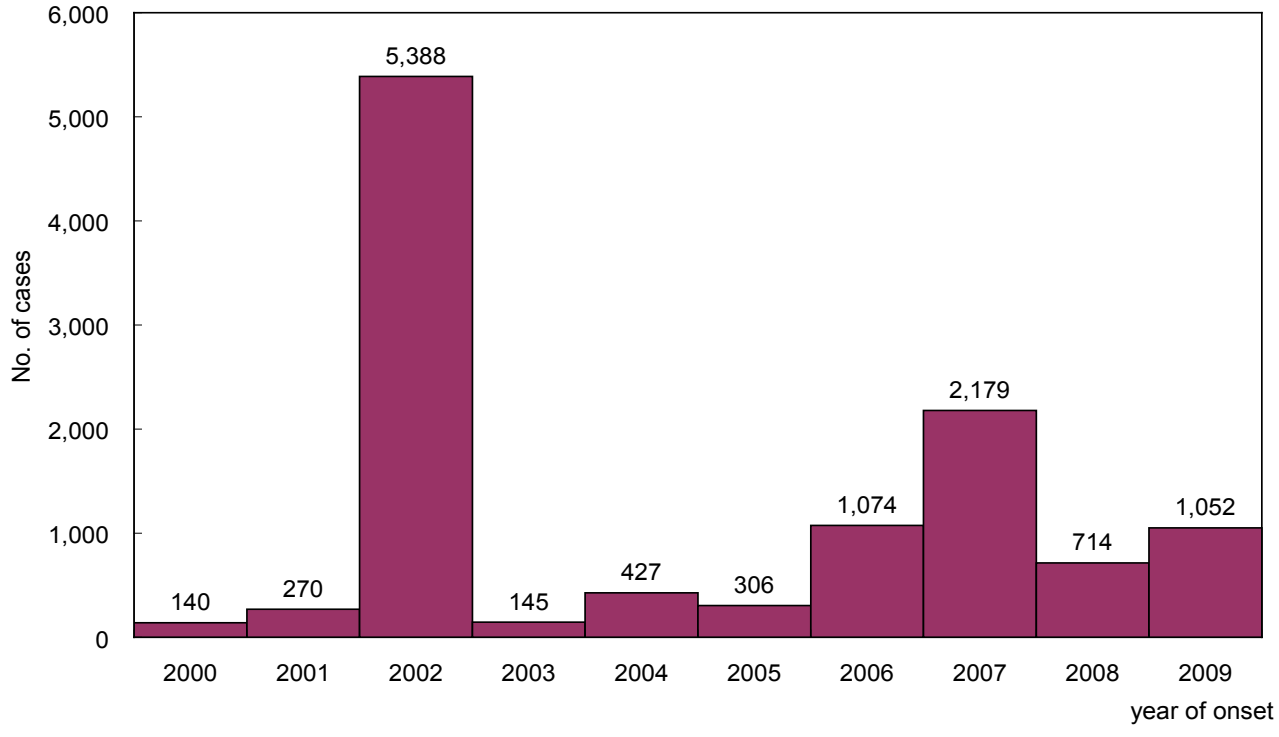


Figure 58 Number of Dengue Fever confirmed cases, 2000-2009

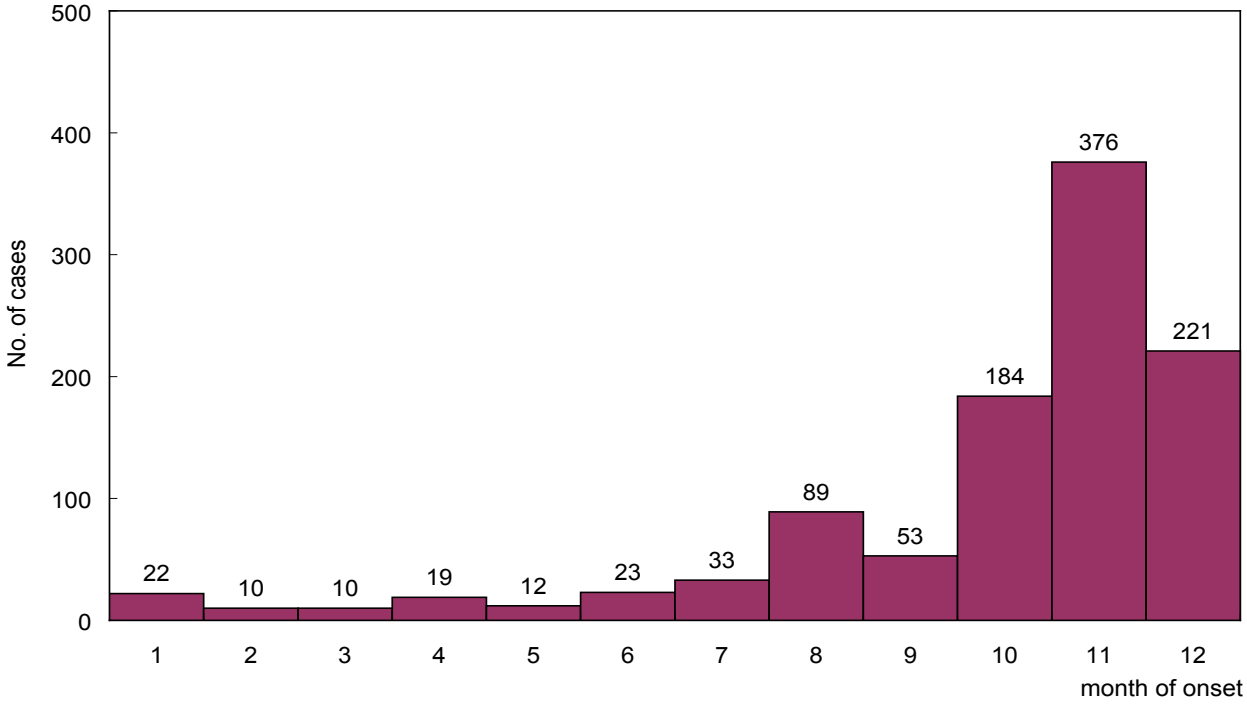


Figure 59 Number of Dengue Fever confirmed cases, 2009

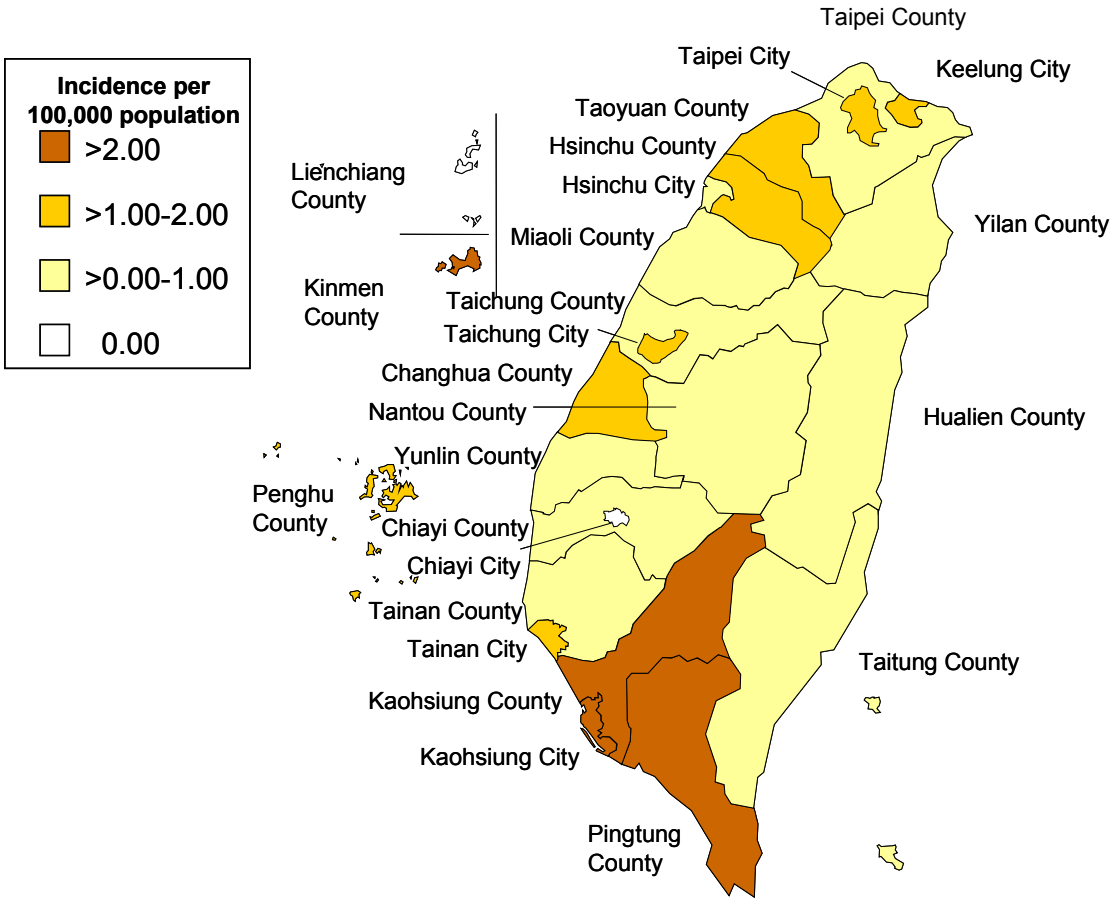


Figure 60 Geographical distribution by incidence of Dengue Fever confirmed cases, 2009

Enteroviruses Infection with Severe Complications

In 2009, a total of 29 cases of enteroviruses infection with severe complications were confirmed (incidence rate = 0.13/100,000)--lower than 373 confirmed cases in 2008 (incidence rate = 1.62/100,000). The disease cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 20 males (69.0%) and 9 females (31.0%), and sex ratio is 2.2 : 1.0.

(2) Age

These cases were mainly under 14 years old. Most patients aged between 1-4 while 9 patients aged 2; 5 aged 1; 5 aged 3;1 aged 4. There were 4 patients less than 1 year old, 5 between 5-14 years old.

Regarding the 4 young patients below 1 year old, 2 of them were 11 months old; 1 was younger than 1 month old; 1 was 1 month old.

(3) Month of onset

These cases occurred from January to August. Except that 6 cases were reported in March, the case numbers were 5 or less in all other months.

(4) Residential Region

The highest case number of the disease, up to 6, was reported in Taipei County, followed by 5 cases in Chiayi City, 3 cases in Taoyuan County, 2 cases each in Taipei City, Changhua County and Kaohsiung City, and 1 case each in the cities and counties such as Hsinchu City, Taichung City, Taichung County, Yunlin County, Chiayi County, Tainan County, Kaohsiung County, Pingtung County, and Yilan County. In the remaining cities and counties other than above, there were no cases confirmed.

The incidence rate of this disease per 100,000 people in Chiayi City was the highest, 1.83, and the second highest was 0.24 in Hsinchu City. The incidence rate, 0.22, in Yilan County was the third highest.

(5) Imported cases and country of infection

There were no imported cases.

(6)Pathogen identification

Serum dilution neutralization test, IgM enzyme-linked immunoassay, virus culture, and RT-PCR molecular biology test were administered for pathogen identification.

25 among the confirmed cases were mainly caused by enterovirus type 71 (24 cases were found due to enterovirus type 71 only, but coxackievirus A10 was also isolated from 1 case). Coxackievirus A5 and B1 were isolated from 1 and 3 cases respectively.

Table 26 Number of Enteroviruses Infection with Severe Complications confirmed cases by age, 2006-2009

	2006		2007		2008		2009	
	No. of cases	%	No. of cases	%	No. of cases	%	No. of cases	%
>=0, <7m	1	9.1	1	8.3	26	7.0	2	6.9
>=7m, <1yr	4	36.3	-	-	39	10.5	2	6.9
>=1, <4 yrs	3	27.3	8	66.7	245	65.7	19	65.5
>=4, <7 yrs	1	9.1	2	16.7	52	13.9	2	6.9
>=7, <16 yrs	2	18.2	1	8.3	11	2.9	4	13.8
>=16 yrs	-	-	-	-	-	-	-	-
Unknown	-	-	-	-	-	-	-	-
Total	11	100.0	12	100.0	373	100.0	29	100.0

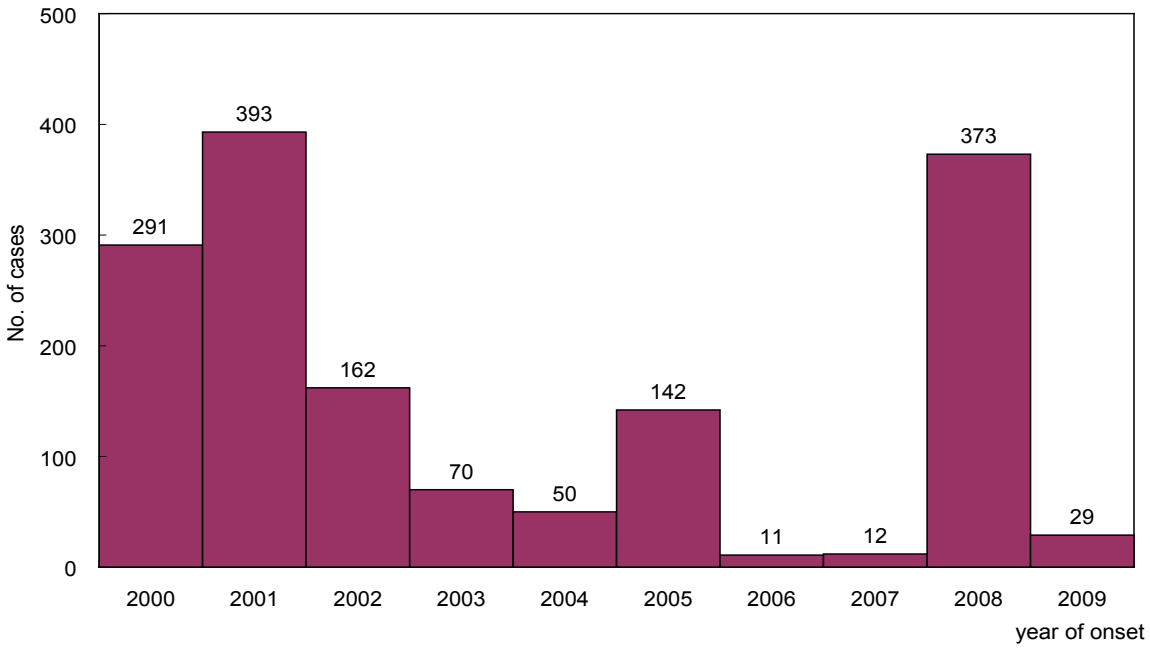


Figure 61 Number of Enteroviruses Infection with Severe Complications confirmed cases, 2000-2009

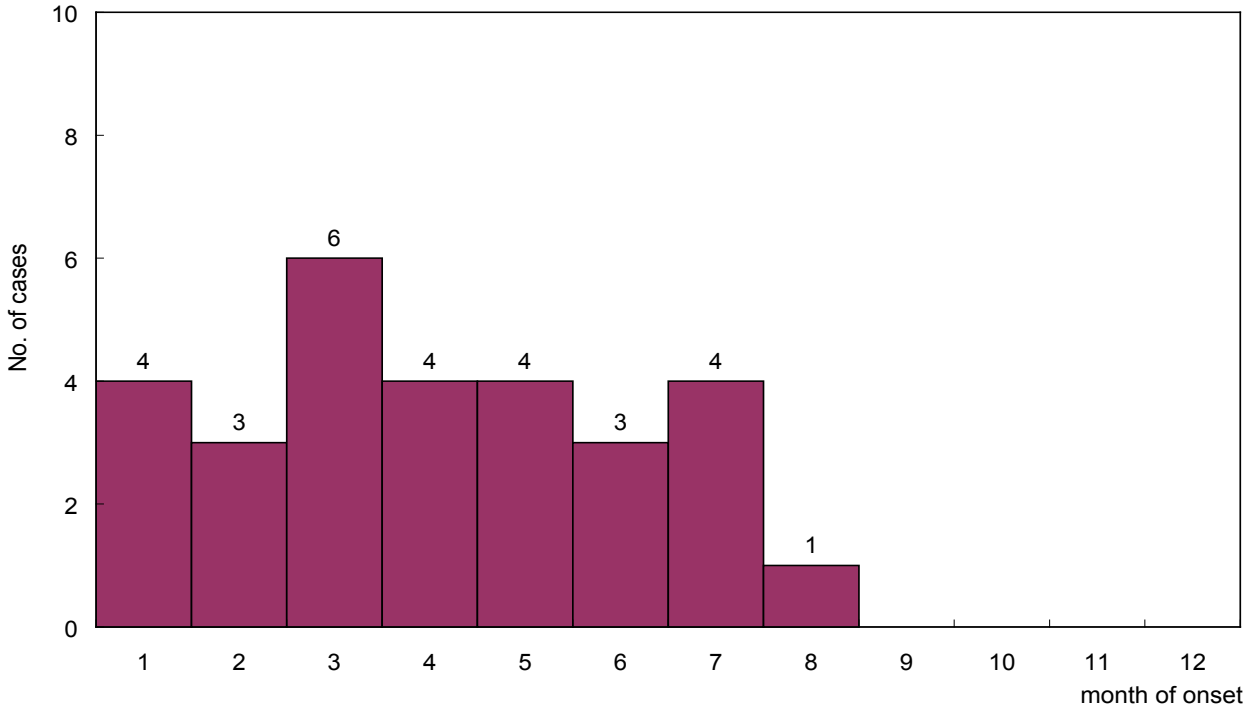


Figure 62 Number of Enteroviruses Infection with Severe Complications confirmed cases, 2009

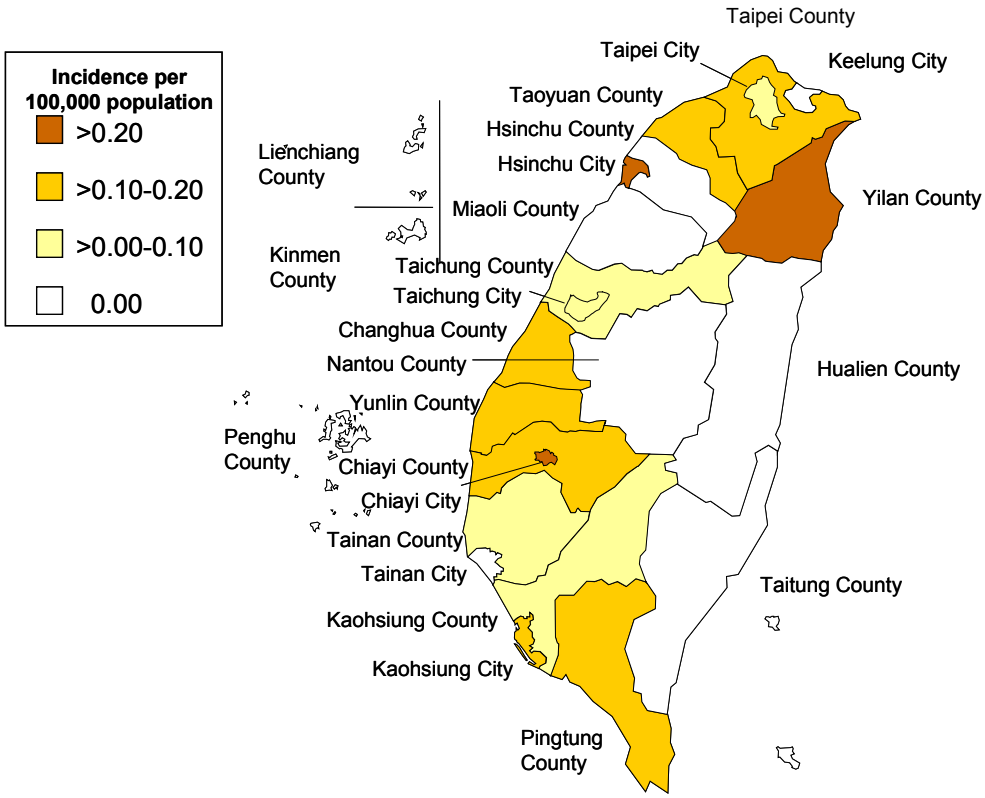


Figure 63 Geographical distribution by incidence of Enteroviruses Infection with Severe complication, 2009

Malaria

In 2009, a total of 11 malaria cases were confirmed (incidence rate = 0.05/100,000), all of which were imported--lower than 18 confirmed cases in 2008 (incidence rate = 0.08/100,000). The confirmed malaria cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 10 males (90.9%) and 1 female (9.1%), and sex ratio is 10.0 : 1.0.

(2) Age

At most, 5 cases were between 40-64 years of age. 3 other patients aged between 15-24 and another 3 patients aged between 25-39.

(3) Month of onset

In April, May, June, and August, no confirmed cases were found. In July and November, 3 and 2 cases were confirmed respectively. One case each was confirmed during January to March, September, October, and December.

(4) Residential Region

The malaria cases were found mainly in Taipei County and Nantou County for a total of 3 cases each, followed by 2 cases each in Taipei City and Changhua County, and 1 case in Taichung County. No confirmed cases were identified in other cities and counties.

The incidence rate of malaria per 100,000 people in Nantou County was the highest, 0.56, and the second highest was 0.15 in Changhua County. The incidence rate, 0.08, in both Taipei City and Taipei County was the third highest.

(5) Imported cases and country of infection

Out of the 11 imported cases, 2 cases came from Asia (Indonesia; 18.2%), and 8 cases came from Africa (Sudan, Nigeria, Ghana, Guinea, the Ivory Coast, Rwanda, Liberia, and Burkina Faso; 72.7%). One case came from America (Brazil; 9.1%).

(6) Type of protozoan pathogen

There were 8 Plasmodium falciparum cases and 3 Plasmodium vivax cases.

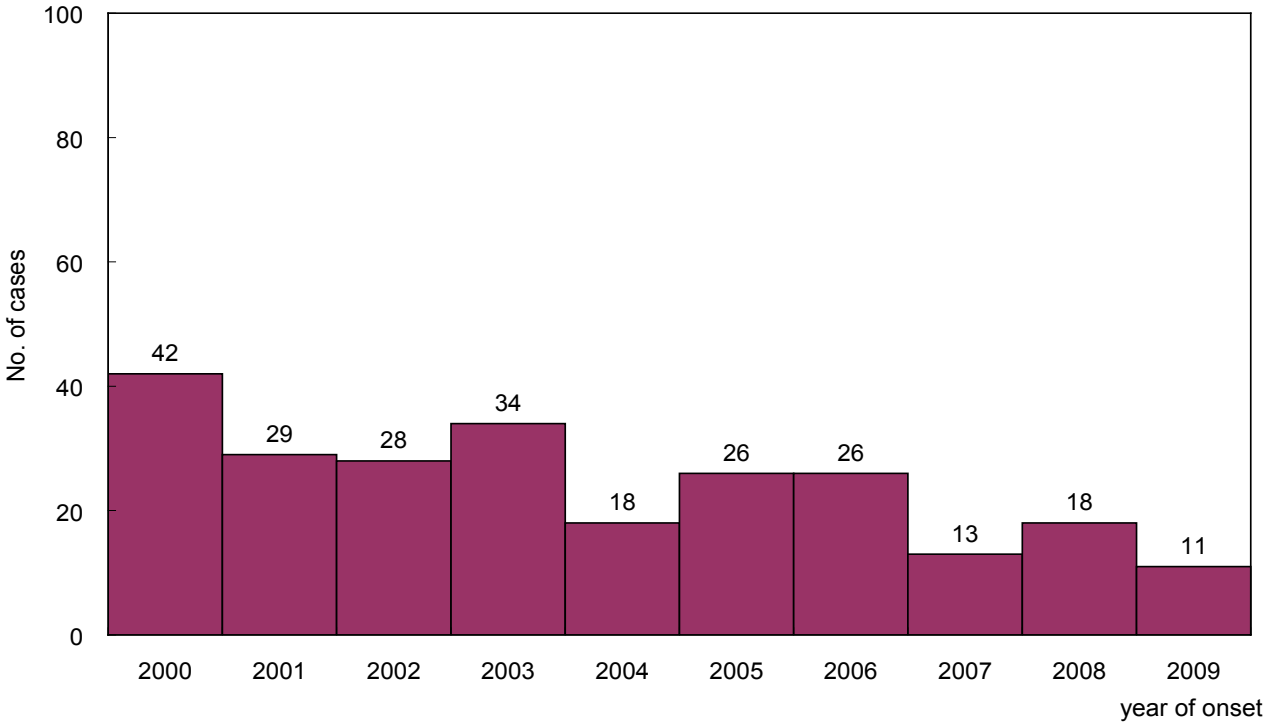


Figure 64 Number of imported Malaria confirmed cases, 2000-2009

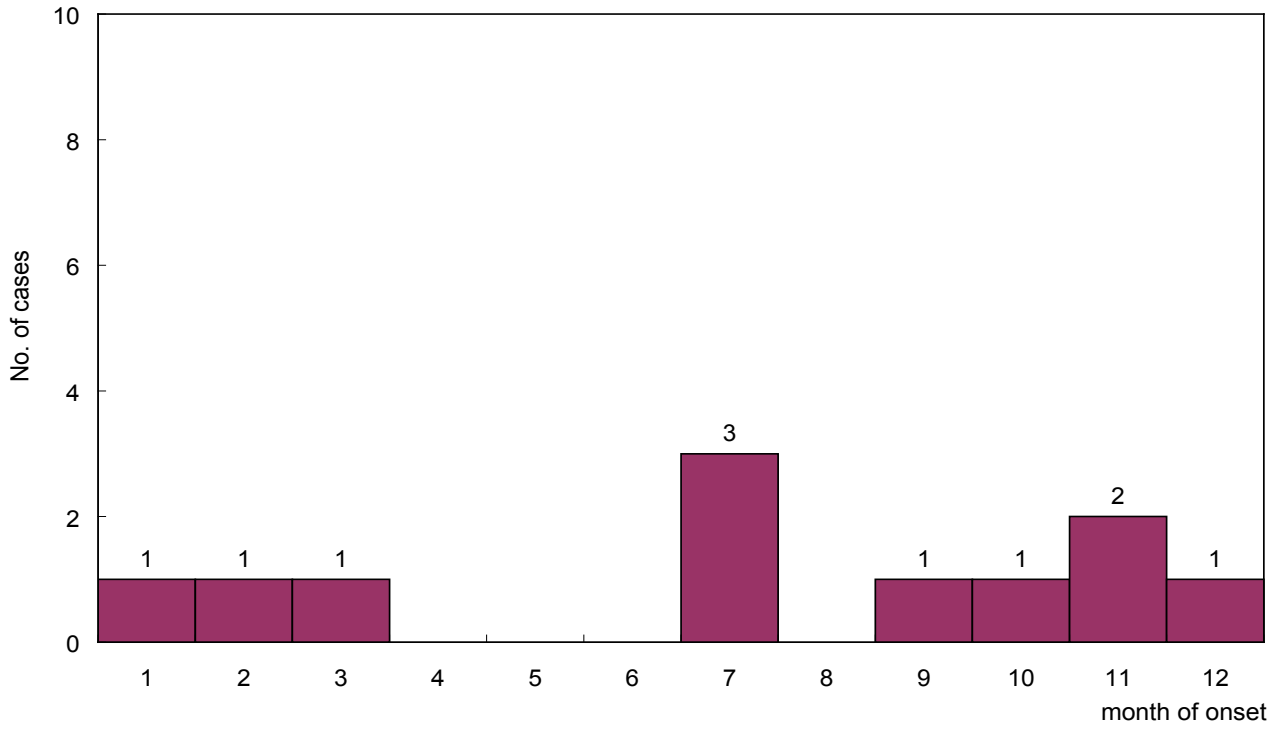


Figure 65 Number of imported Malaria confirmed cases, 2009

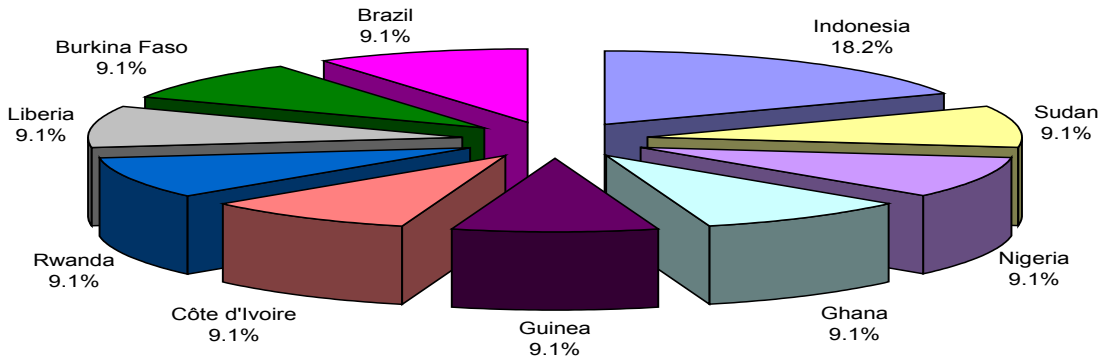


Figure 66 Infections source of imported Malaria confirmed cases, 2009

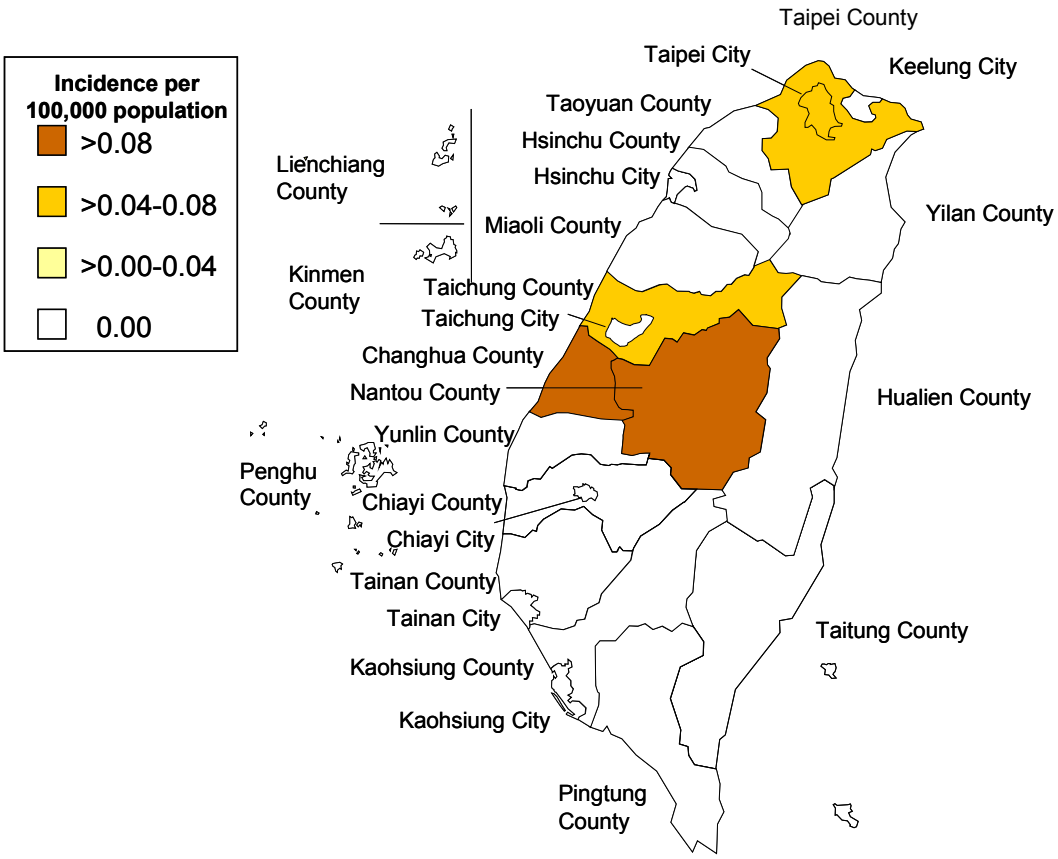


Figure 67 Geographical distribution by incidence of imported Malaria confirmed cases, 2009

Shigellosis

In 2009, a total of 91 shigellosis cases were confirmed (incidence rate = 0.39/100,000), 52 of which were imported--no obvious increase compare with 90 confirmed cases with 44 of them imported in 2008 (incidence rate = 0.39/100,000). The shigellosis cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

Out of the 52 imported cases, 29 were males (55.8%) and 23 were females (44.2%), and sex ratio is 1.3 : 1.0.

Out of the 39 indigenous cases, 15 were males (38.5%) and 24 were females (61.5%), and sex ratio is 0.6 : 1.0.

(2) Age

As for the 52 imported cases, 1 patient aged between 1-4 (1.9%); 6 aged between 5-14 (11.5%); 7 aged between 15-24 (13.5%); 25 aged between 25-39 (48.1%); 12 aged between 40-64 (23.1%); 1 aged 65 or above.

Out of the 39 indigenous cases, 4 patients aged between 5-14 (10.3%); 5 aged between 15-24 (12.8%); 9 aged between 25-39 (23.1%); 13 aged between 40-64 (33.3%); 8 aged 65 or above.

(3) Month of onset

The 52 imported cases occurred in all months while as many as 8 cases were reported in May, followed by 7 cases in February, and 6 cases each in June and August. In January, September, November, and December, there were 4 cases reported in each of these months. There were 3 cases confirmed each in April and July; 2 cases were confirmed in March and 1 case was reported in October.

As for the 39 indigenous cases, these cases occurred in all months, except September. The number of cases peaked at 20 in November, then 4 cases were confirmed each in January and December. There were 2 cases reported each in March, June, and August while only 1 case was reported each in February, April, May, July, and October.

(4) Residential Region

Out of the 52 imported cases, 16 cases resided in Taipei County, and 10 resided in Taipei City, followed by 7 in Taichung County, 4 in Hsinchu City and Kaohsiung City, and 2 each in Taoyuan County, Miaoli County, Taichung City, and Yunlin County. In Hsinchu County, Tainan City, and Tainan

County, 1 case was reported each. No imported cases were confirmed in other cities and counties.

Most of the indigenous 39 cases, up to 18, resided in Taichung City, followed by 4 in Changhua County, 3 in Miaoli County, and 2 each in Taipei City, Taipei County, and Kaohsiung County. There was 1 case confirmed in each of these cities and counties-- Keelung City, Hsinchu City, Hsinchu County, Taichung County, Nantou County, Tainan City, Tainan County, and Kaohsiung city. No indigenous cases were confirmed in other cities and counties.

The incidence rate of this disease per 100,000 people in Taichung City was the highest, 1.87, and the second highest was in Hsinchu City, 1.22. The incidence rate, 0.89, in Miaoli County was the third high.

(5) Imported cases and country of infection

Out of the 52 imported cases, 51 (98.1%) came from Asian countries--14 from Cambodia,10 from Indonesia, 8 from Vietnam, 6 from China, 5 from the Philippines, 4 from India, and 1 each from Thailand, Iran, Laos, and Nepal. Only 1 case came from America (the USA; 1.9%).

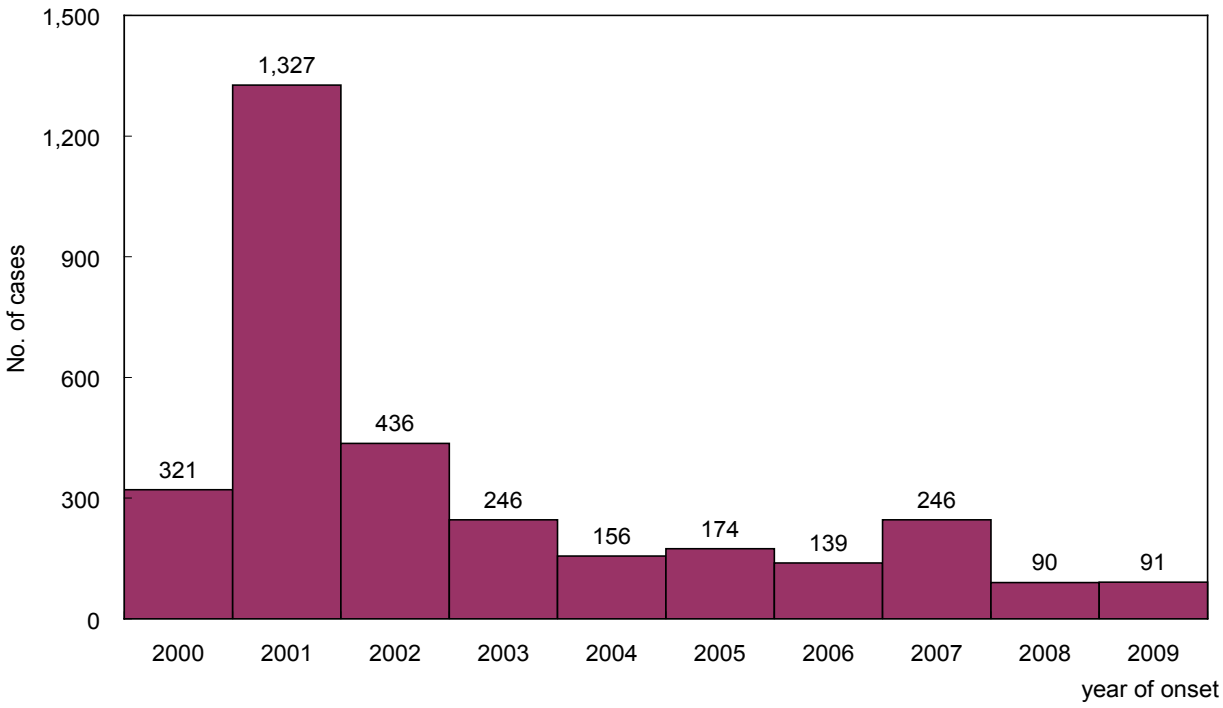


Figure 68 Number of Shigellosis confirmed cases, 2000-2009

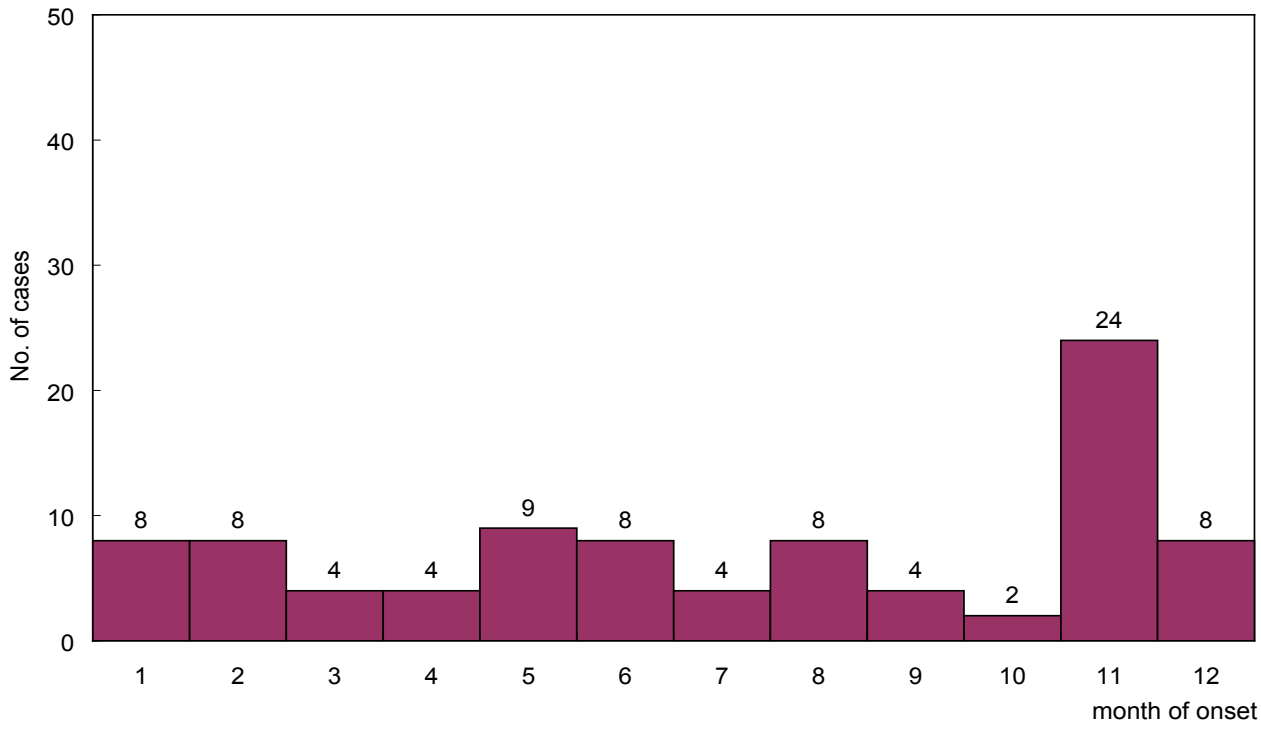


Figure 69 Number of Shigellosis confirmed cases, 2009

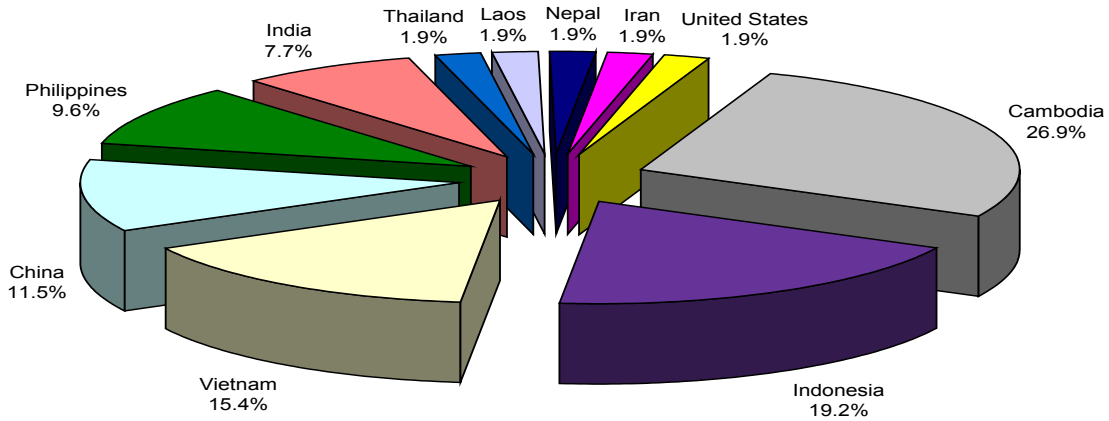


Figure 70 Infections source of Shigellosis confirmed cases, 2009

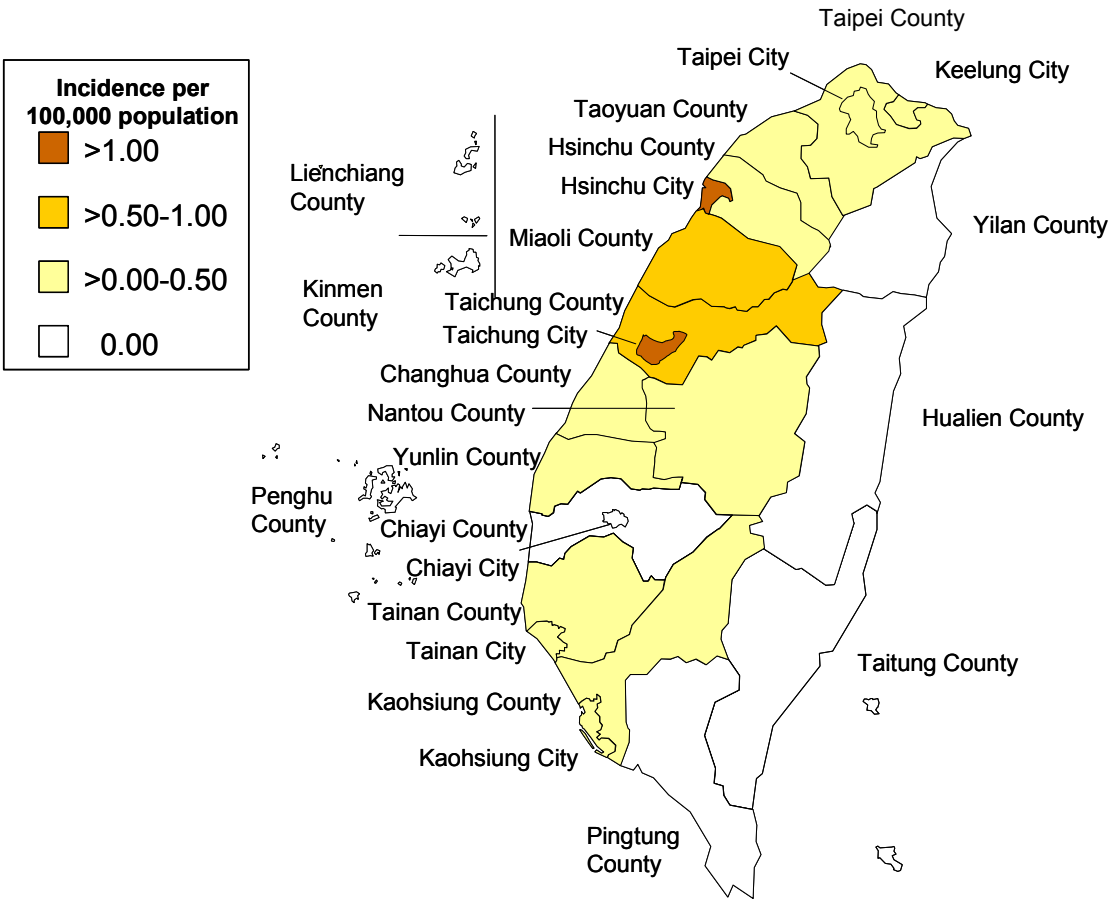


Figure 71 Geographical distribution by incidence of Shigellosis confirmed cases, 2009

Severe Complicated Influenza Case

Since April 2009, pandemic influenza A (H1N1) cases have been reported, and the disease spread out rapidly throughout this world. On April 26, 2009, World Health Organization (WHO) announced the definition of pandemic influenza A (H1N1). In Taiwan, the disease was immediately listed in Category 1 notifiable communicable diseases. It was stipulated that all medical care institutions shall report any suspected H1N1 cases within 24 hours in favor of epidemic surveillance. Since then, a total of 61 cases were confirmed (Among them, 59 cases were imported). Later, as many H1N1 patients developed only mild symptoms, WHO defined this epidemic as a "mild" one. Thus, since June 19, H1N1 was excluded from the 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.

In 2009, a total of 1,134 cases were confirmed (incidence rate = 4.91/100,000).--higher than 22 confirmed cases in 2008 (incidence rate = 0.01/100,000). The cases of severe complicated influenza case in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 620 males (54.7%) and 514 females (45.3%), and sex ratio is 1.2 : 1.0.

(2) Age

Most cases were between 5-14 years of age for a total of 313 cases. 233 patients aged between 40-64; 157 patients aged between 25-39; 154 patients aged between 15-24; 138 aged 65 or above; 117 patients aged between 1-4; 22 patients aged less than 1.

(3) Month of onset

There were no cases reported from April to June. Most cases were confirmed during the period from August to December, and the number of cases in each of these months was higher than 100. The number of cases was the highest in September as of 264 cases, followed by 258 cases in November, 250 cases in August, 217 cases in October, 105 cases in December, 21 cases in July, 9 cases in January, 6 cases in February and 4 cases in March.

(4) Residential Region

As many as 287 cases resided in Taipei County, higher than 171 cases in Taipei City. In Hualien County, the number of cases was 95 whereas in Taoyuan County, the number of cases was 67. There were 62 cases from Miaoli County, and 49 cases were reported each in Taichung County and Pingtung County. There were also 43, 42, and 41 cases from Changhua County, Kaohsiung City, and Kaohsiung County respectively. The numbers of cases in the remaining cities and counties other

than the above were all 30 or less. No confirmed cases were identified in Lienchiang County.

The incidence rate of severe complicated influenza case per 100,000 people in Hualian County was the highest, 27.84, and the second highest was in Miaoli County, 11.05. The incidence rate, 7.45, in Taipei County was the third high.

(5) Imported cases and country of infection

A total of 7 cases were imported, 3 of which each from China and Indonesia. There was also 1 case from Vietnam.

(6) Virus type

Out of the total cases, 1,133 cases were infected with influenza virus type A (21 and 146 cases were due to type H1 and H3 respectively; 861 cases were due to pandemic influenza A (H1N1); 105 were undetermined); 1 case was caused by influenza virus type B.

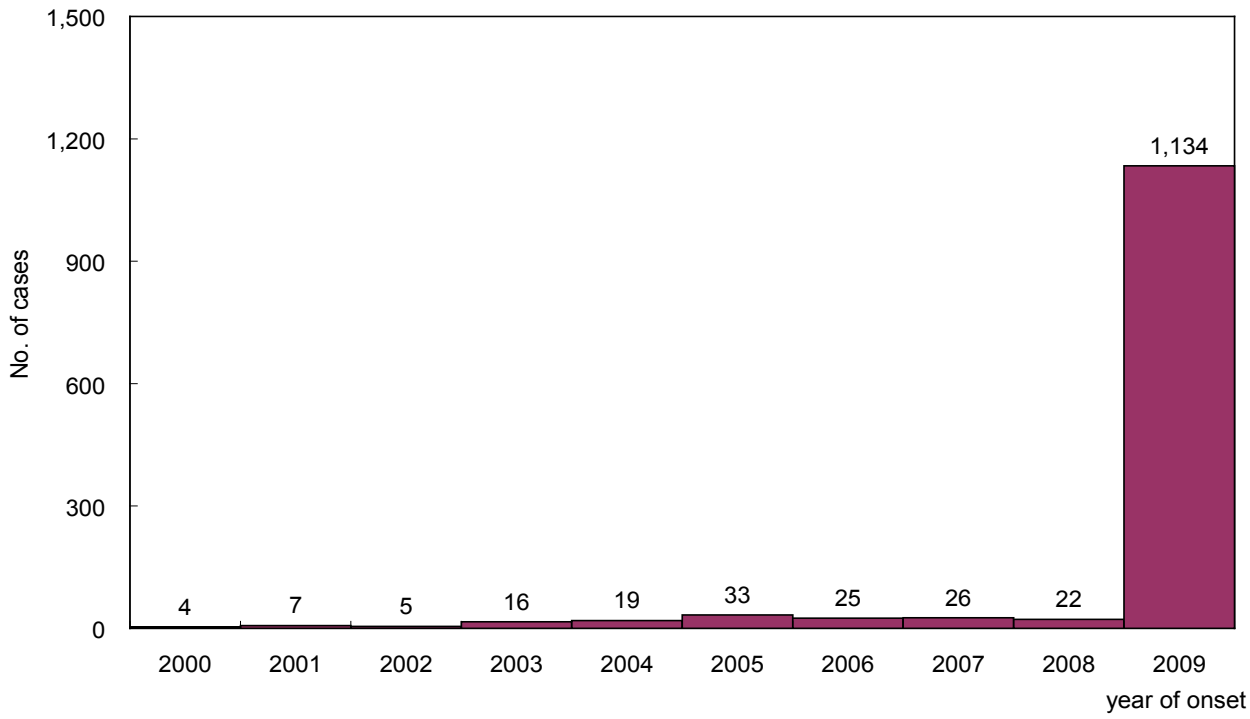


Figure 72 Number of Severe Complicated Influenza Confirmed Cases, 2000-2009

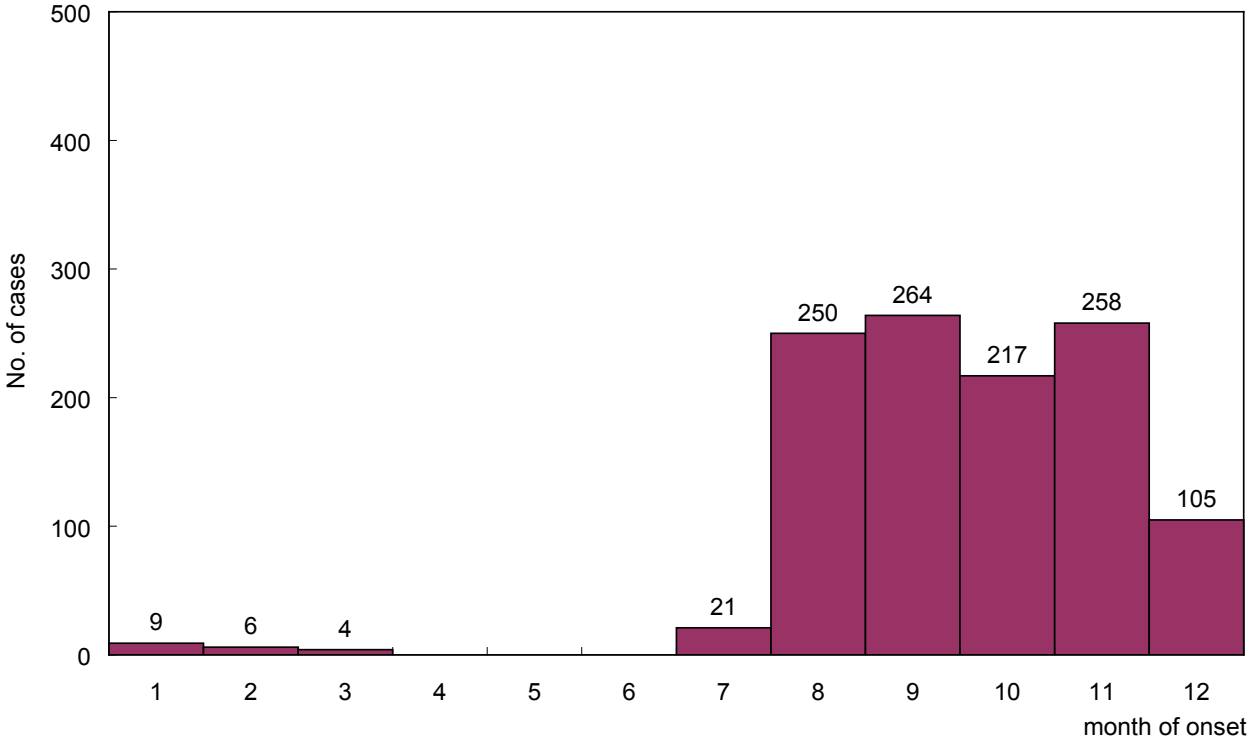


Figure 73 Number of Severe Complicated Influenza Confirmed Cases, 2009

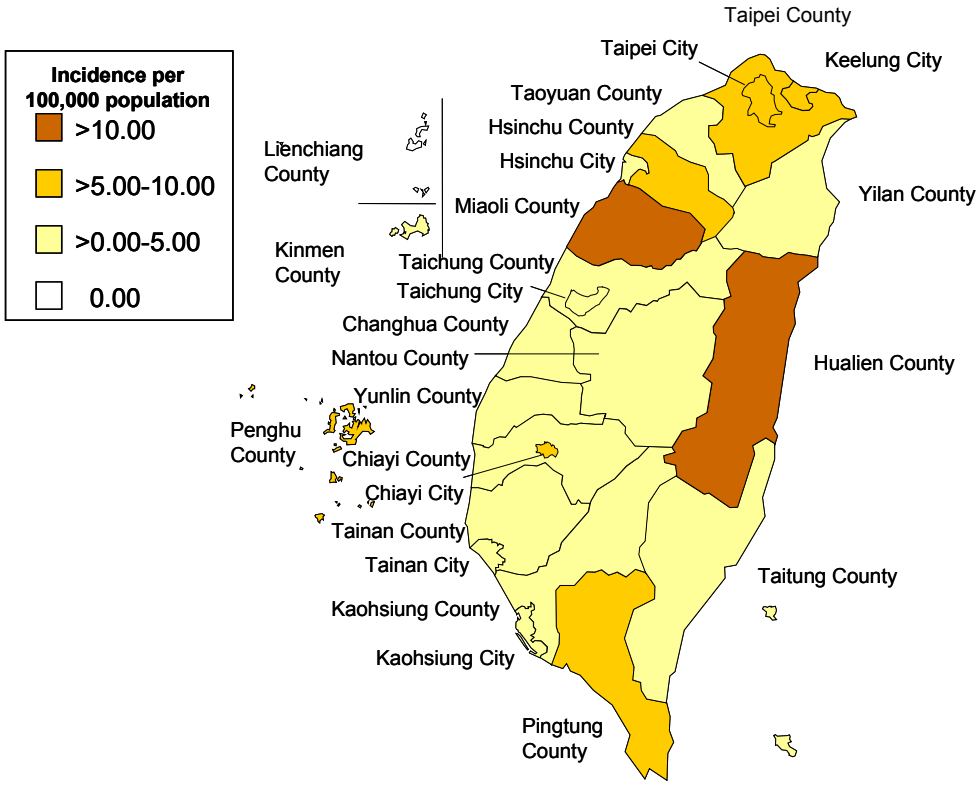


Figure 74 Geographical distributions by incidence of Severe Complicated Influenza Confirmed Case, 2009

Syphilis

In 2009, a total of 6,668 syphilis cases were confirmed (incidence rate =28.89/100,000)--higher than 6,526 confirmed cases in 2008 (incidence rate= 28.38/100,000). The syphilis cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 4,609 males (69.1%) and 2,059 females (30.9%), and sex ratio is 2.2 : 1.0.

(2) Age

Most cases were between 40-64 years of age for a total of 2,578 cases (38.7%). 1,974 patients (29.6%) aged between 25-39; 1,426 patients (21.4%) aged 65 or above; 666 patients (10.0%) aged between 15-24; 3 patients (<0.1 %) aged between 5-14; 21 patients (0.3%) aged below 1.

(3) Month of onset (based on diagnosis date)

There were no specific months or seasons of onset; the disease cases occurred in all months.

(4) Residential Region

As many as 1,436 syphilis cases (21.5%) resided in Taipei County, and 914 cases (13.7%), the second highest case number, resided in Taipei City. In Taoyuan County, Kaohsiung City, Taichung City and Kaohsiung County, there were 647 (9.7%), 405 (6.1%), 384 (5.8%), and 375 cases (5.6%) reported respectively. No confirmed cases were identified in Lienchiang County.

The incidence rate of syphilis per 100,000 people in Yilan County was the highest,47.70, and the second highest was in Taipei County, 37.26. The incidence rate, 35.89, in Taichung City was the third high. In Taipei City, Keelung City, Taoyuan County, Hualien County, Pingtung County, and Kaohsiung County, the incidence rates of syphilis per 100,000 people were respectively 34.95, 33.96, 32.86, 32.24, 31.12, and 30.16. The incidence rates in the remaining cities and counties other than the above were all lower than 30.00.

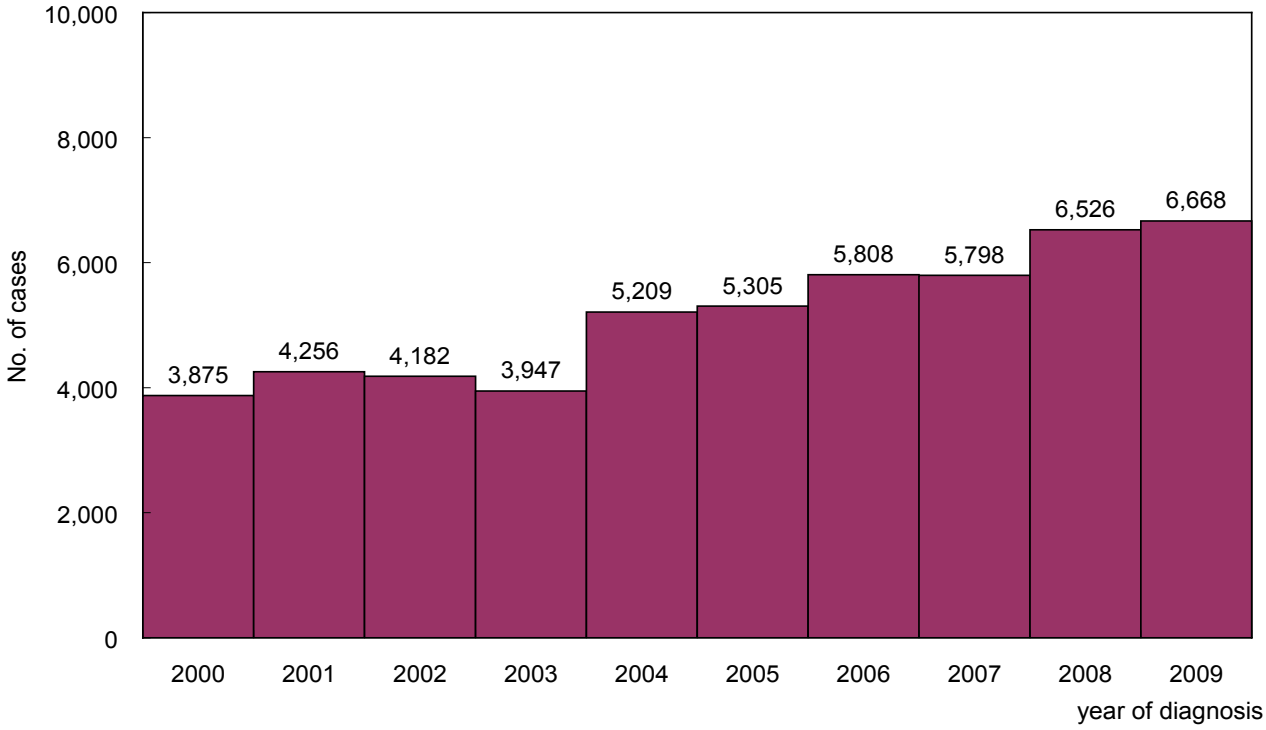


Figure 75 Number of Syphilis confirmed cases, 2000-2009

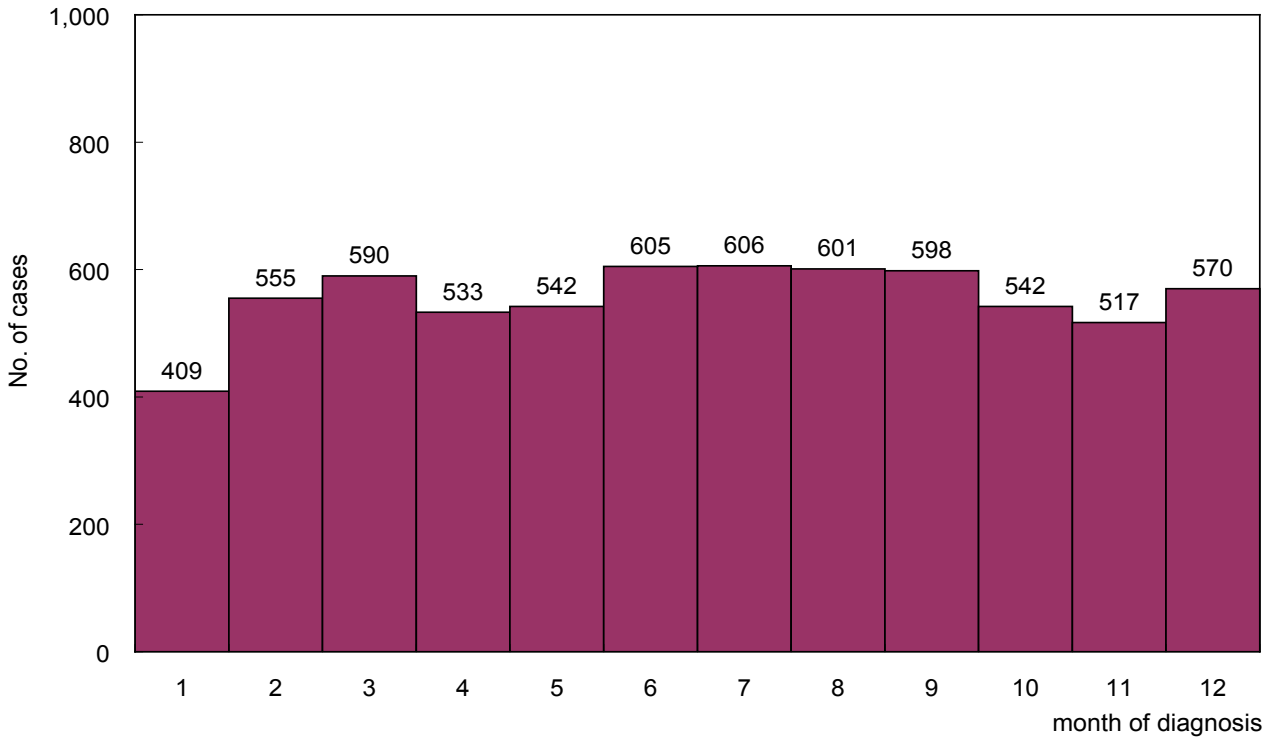


Figure 76 Number of Syphilis confirmed cases, 2009

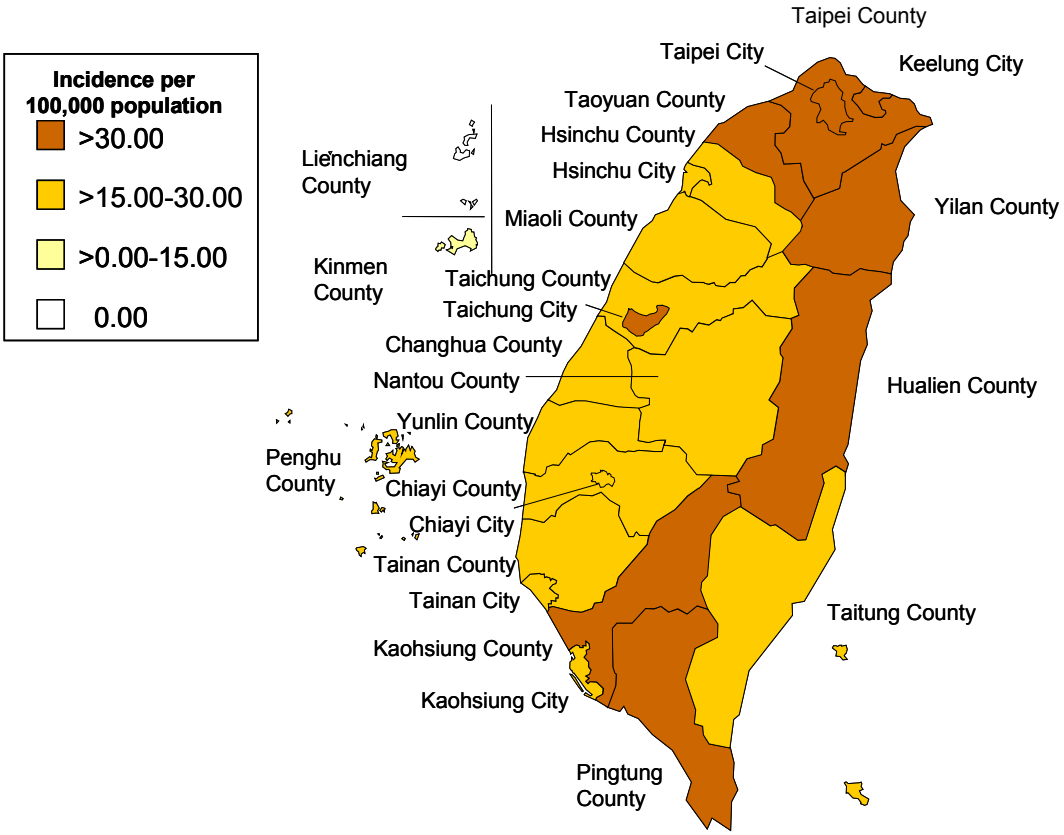


Figure 77 Geographical distribution by incidence of Syphilis confirmed cases, 2009

Gonorrhea

In 2009, a total of 2,137 gonorrhea cases were confirmed (incidence rate = 9.26/100,000)--higher than 1,621 confirmed cases in 2008 (incidence rate = 7.05/100,000). The gonorrhea cases in 2009 were statistically analyzed, and the results are as follow:

(1) Sex

There were 1,915 males (89.6%) and 222 females (10.4%), and sex ratio is 8.6 : 1.0.

(2) Age

Most cases were between 25-39 years of age for a total of 1,160 cases (54.3%). 601 (28.1%) patients aged between 15-24; 333 patients (15.6%) aged between 40-64; 32 patients (1.5%) aged 65 or above. Other age group is less than 10 cases.

(3) Month of onset (based on diagnosis date)

There were no specific months or seasons of onset; the disease cases occurred in all months.

(4) Residential Region

Most gonorrhea cases, up to 624 cases (29.2%), resided in Taipei County, followed by 487 (22.8%) in Tiapei City, 249 (11.7%) in Taoyuan County, 96 (4.5%) in Taichung County, and 84 cases (3.9%) in Kaohsiung City. No confirmed cases were identified in Lienchiang County.

The incidence rate of gonorrhea per 100,000 people in Taipei City was the highest, 18.62, and the second highest was 16.19 in Taipei County. The incidence rate, 12.65, in Taoyuan County was the third highest. In Hsinchu County, the incidence rate was 12.42. The incidence rates in other cities and counties were lower than 10.00.

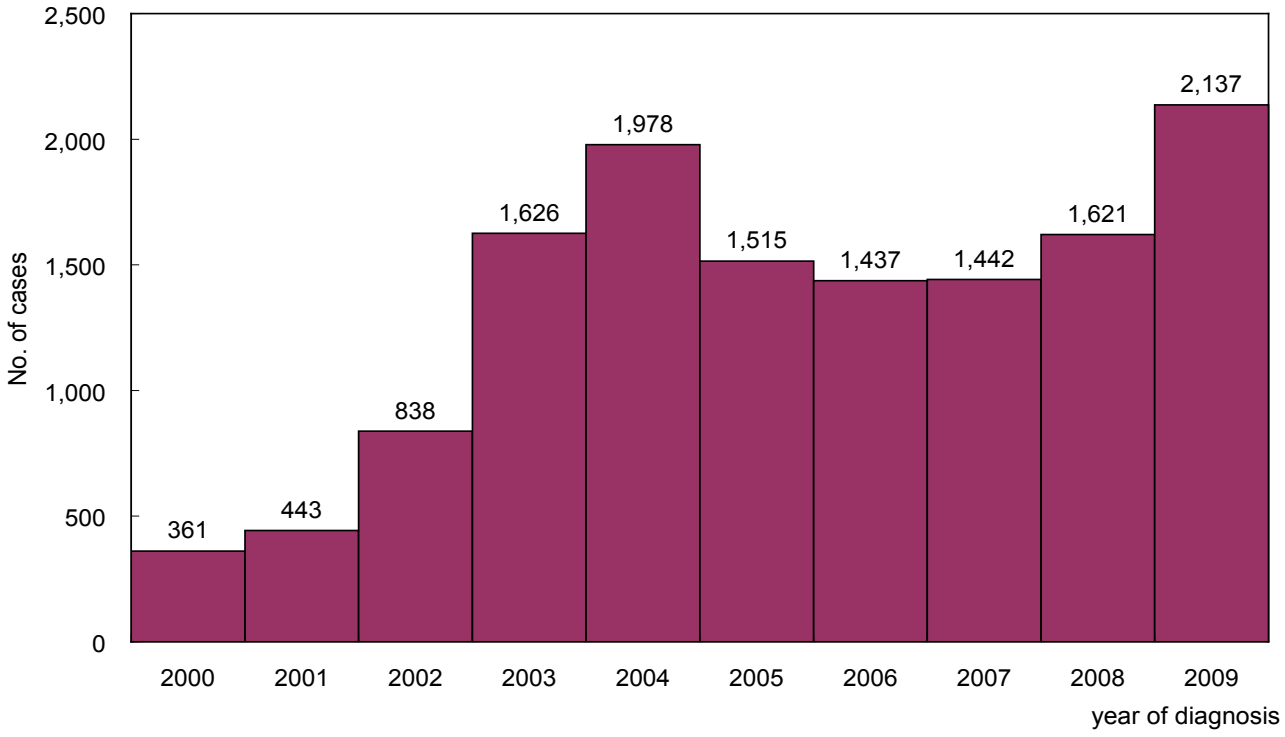


Figure 78 Number of Gonorrhea confirmed cases, 2000-2009

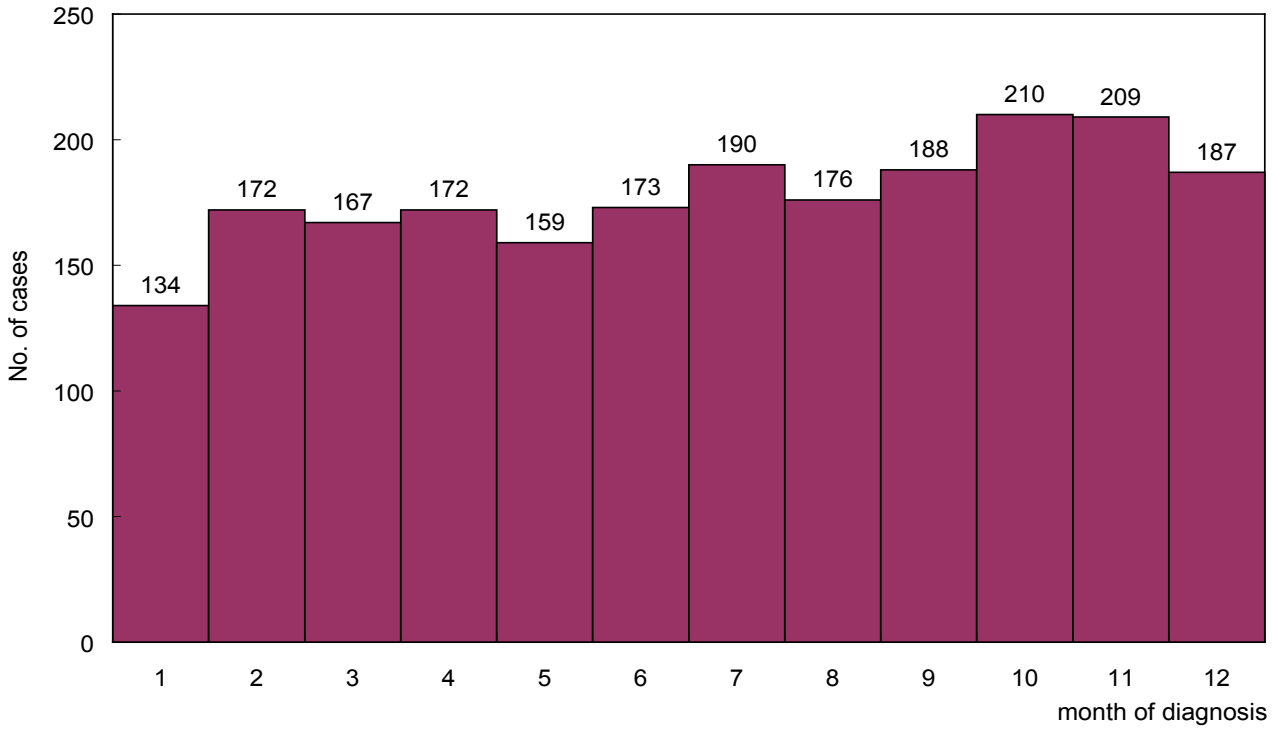


Figure 79 Number of Gonorrhea confirmed cases, 2009

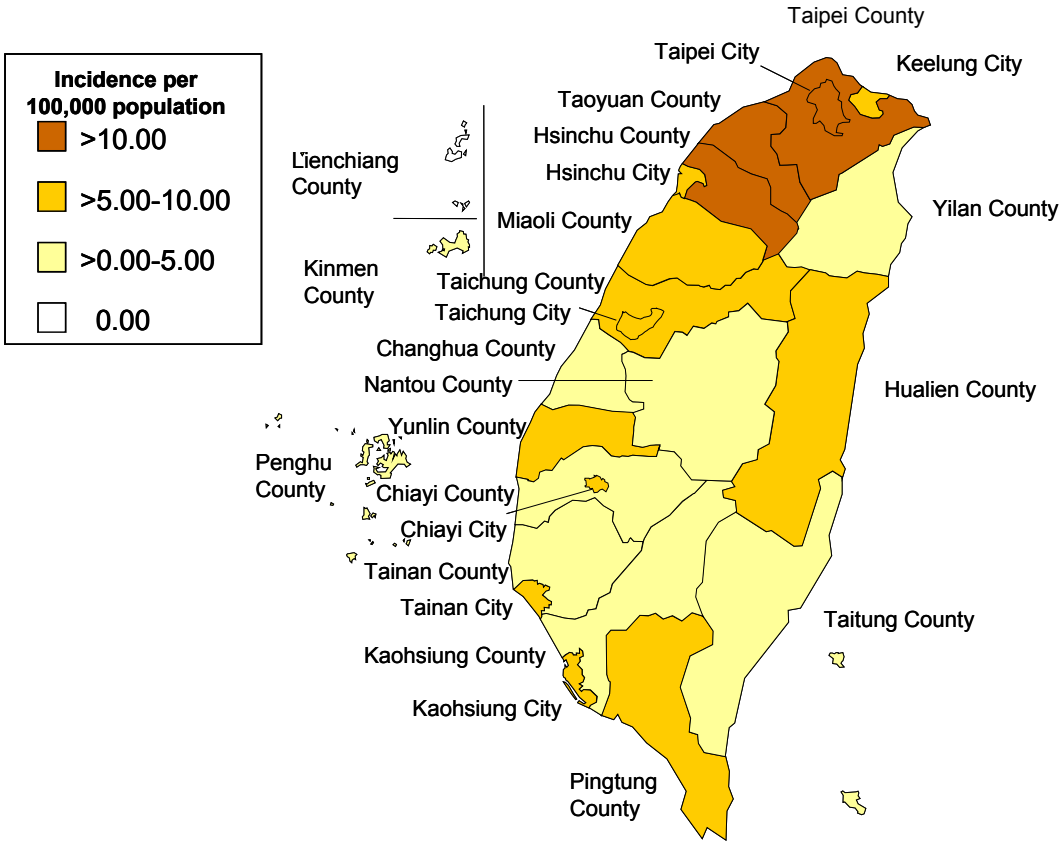


Figure 80 Geographical distribution by incidence of Gonorrhea confirmed cases, 2009

HIV Infection & AIDS

From 1984 to December 2009, a total of 19,105 people infected with human immunodeficiency virus (18,378 native cases and 727 foreign cases) have been confirmed (hereafter referred to as HIV-infected cases). A total of 6,197 cases (6,116 native cases and 81 foreign cases) had the onset of acquired immunodeficiency syndrome (hereafter referred to as AIDS).

In 2009, a total of 1,696 HIV-infected cases were diagnosed (1,648 native cases and 48 foreign cases). There were 940 AIDS cases (930 native cases and 10 foreign cases). Statistical analysis was conducted on confirmed native cases in 2009, and the results are as follows:

(1) Sex

HIV-infected cases: There were 1,580 males (95.9%) and 68 females (4.1%). The sex ratio was 23.2 : 1.0.

AIDS cases: A total of 875 males (94.1%) and 55 females (5.9%) were confirmed, with the sex ratio at 15.9 : 1.0.

(2) Age

HIV-infected cases: As many as 849 patients (51.5%) aged between 25-39; 413 patients (25.1%) aged between 15-24; 366 patients (22.2%) aged between 40-64.

AIDS cases: Most of the AIDS cases for a total of 365 cases were 25-39 years old (39.2%); 255 cases were 40-64 years old (27.4%); 88 cases were 15-24 years old (9.5%).

(3) Month of onset (based on diagnosis date)

There were no specific months or seasons of onset; the disease cases occurred in all months.

(4) Risk factors

HIV-infected cases: as many as 1,050 cases (63.7%) were infected through male homosexual activities; 315 cases (19.1%) were infected through heterosexual activities; 177 cases (10.7%) had drug addiction; 1 case (0.1%) was due to vertically acquired infection; 105 cases (6.4%) had no known risk factors.

Male HIV-infected cases: Most cases, up to 1,050 cases (66.4%), were infected through male homosexual activities; 273 cases (17.3%) were infected through heterosexual activities; 155 cases (9.8%) had drug addiction; 1 case (0.1%) was due to vertically acquired infection; 101 cases (6.4%) had no known risk factors.

Female HIV-infected cases: As many as 42 cases (61.8%) were infected through heterosexual activities; 22 cases (32.4%) had drug addiction; 4 cases (5.9%) had no known risk factors.

AIDS cases: Most cases, as many as 464 cases (49.9%), were infected through male homosexual activities; 236 cases (25.4%) were infected through heterosexual activities; 204 cases (21.9%) had drug addiction; 26 cases (2.8%) had no known risk factors.

Male AIDS cases: Most cases, up to 464 cases (53.0%), were infected through male homosexual activities; 211 cases (24.1%) were infected through heterosexual activities; 176 cases (20.1%) had drug addiction; 24 cases (2.7%) had no known risk factors.

Female AIDS cases: Most cases, 28 (51.9%), had drug addiction; 25 cases (46.3%) were infected through heterosexual activities; 2 cases (3.7%) had no known risk factors.

Please refer to Tables 27 and 28 for detailed risk factors.

(5) Occupations

HIV-infected cases: 667 cases (40.5%) were in the category of other occupations; 361 were unemployed (21.9%); 174 (10.6%) were students; 165 (10.0%) were employees of service industry; 84 subjects (5.1%) were on active duty of military service; the remaining statistics are shown in Table 29.

AIDS cases: 293 cases (31.5%) were in the category of other occupations; 266 were unemployed (28.6%); 128 (13.8%) were employees of service industry; 52 (5.6%) were students; the remaining statistics are shown in Table 29.

(6) Residential Region

HIV-infected cases: Most cases, 406 (24.6%), resided in Taipei County, followed by 255 (15.5%) in Taipei City, 141 (8.6%) in Taoyuan County, 139 (8.4%) in Kaohsiung City, and 112 (6.8%) in Taichung City.

The highest incidence rate of HIV infection per 100,000 people was the highest in Taipei County, 10.48, and the second highest, 10.43, was in Taichung City. The incidence rate in Taipei City, 9.78, was the third high.

AIDS cases: Most cases, 192 (20.6%), resided in Taipei County. There were 120 cases (12.9%) reported in Taoyuan County, and 112 cases (12.0%) confirmed in Taipei City. In Taichung City and Tainan County, there were respectively 66 (7.1%) and 55 (5.9%) reported. No confirmed cases were identified in Lienchiang County.

The incidence rate of AIDS per 100,000 people was the highest in Chiayi County, 6.57, and that in Taichung City was the second highest, 6.15. The incidence rate in Miaoli County, 6.06, was the third highest.

Table 27 Risk factor of HIV infection confirmed cases (foreigner excluded), 2009

Risk factor	Male	%	female	%	Total	%
Heterosexuals	273	17.3%	42	61.8%	315	19.1%
Homosexuals	1050	66.4%	0	0.0%	1050	63.7%
Injecting drug users	155	9.8%	22	32.4%	177	10.7%
Vertical transmission	1	0.1%	0	0.0%	1	0.1%
Hemophiliacs	0	0.0%	0	0.0%	0	0.0%
Unknown	101	6.4%	4	5.9%	105	6.4%
Total	1580	100.0%	68	100.0%	1648	100.0%

Table 28 Risk factor of AIDS confirmed cases (foreigner excluded), 2009

Risk factor	Male	%	female	%	Total	%
Heterosexuals	211	24.1%	25	45.5%	236	25.4%
Homosexuals	464	53.0%	0	0.0%	464	49.9%
Injecting drug users	176	20.1%	28	50.9%	204	21.9%
Vertical transmission	0	0.0%	0	0.0%	0	0.0%
Hemophiliacs	0	0.0%	0	0.0%	0	0.0%
Unknown	24	2.7%	2	3.6%	26	2.8%
Total	875	100.0%	55	100.0%	930	100.0%

Table 29 Occupational distribution of HIV /AIDS confirmed cases (foreigner excluded), 2009

Occupation	HIV	AIDS	Occupation	HIV	AIDS
Others	667	293	Military Conscript Physical Examination confirmed	12	1
Unemployment	361	266	Construction	12	11
Student	174	52	Transport, Container & Communication	9	5
Services	165	128	Financial intermediation (includes insurance)	8	19
Servicemen	84	37	Agriculture, Forestry, Fishing & Animal Husbandry	8	3
Professional,Scientific & Technical Services	22	21	Culture, Sporting & Recreational services	7	4
Education	22	13	House Keeping	6	8
Manufacturing	18	15	Sailors	2	0
Accommodation & Food services	17	10	Docter	2	2
Wholesale & Retail trade	17	12	Health care & Sociel welfare Services	2	0
bridewell	15	1	Minning & Quarrying	2	23
Public administration (includes government agency)	14	5	Real Estate, Rental & Leasing	1	1
			Hospital workers (nonmedical personnel)	1	0

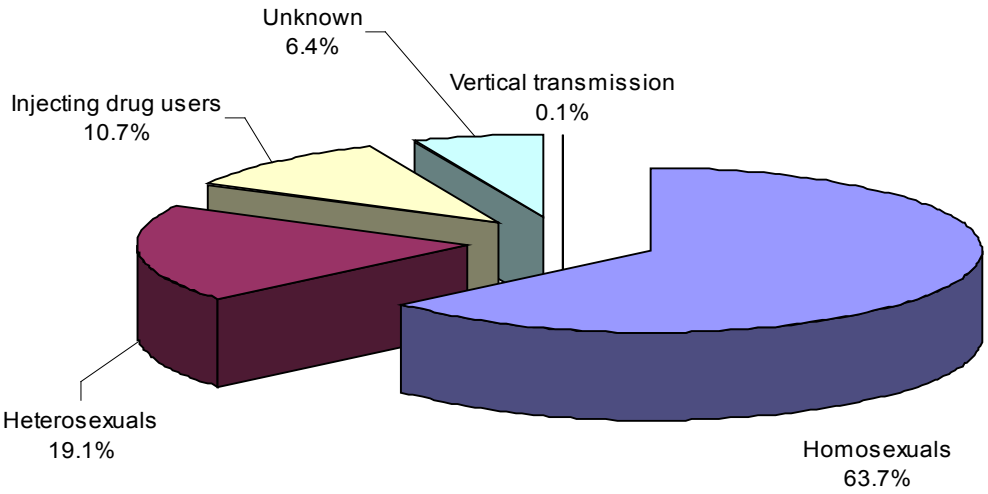


Figure 81 Risk factor of HIV infection confirmed cases (foreigner excluded), 2009

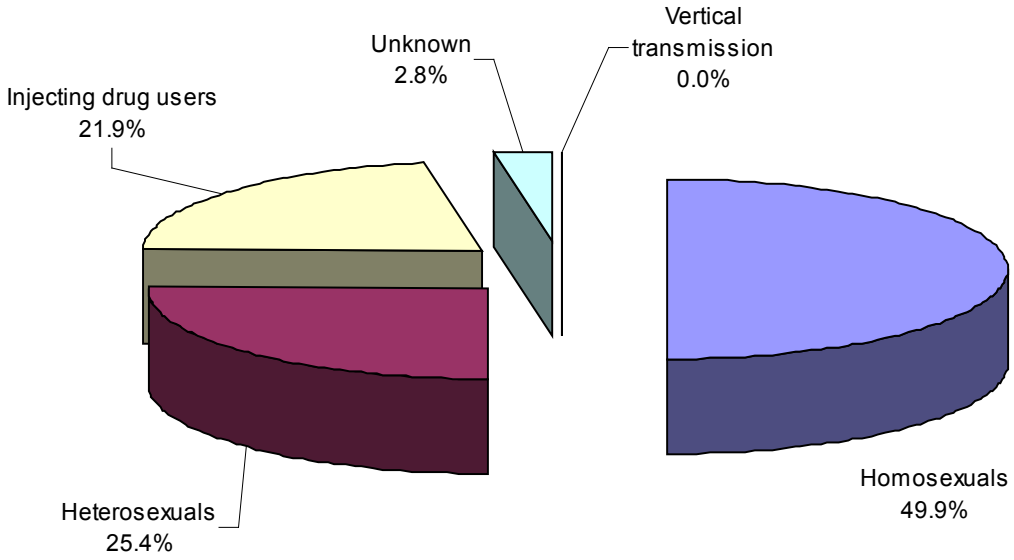


Figure 82 Risk factor of AIDS confirmed cases (foreigner excluded), 2009

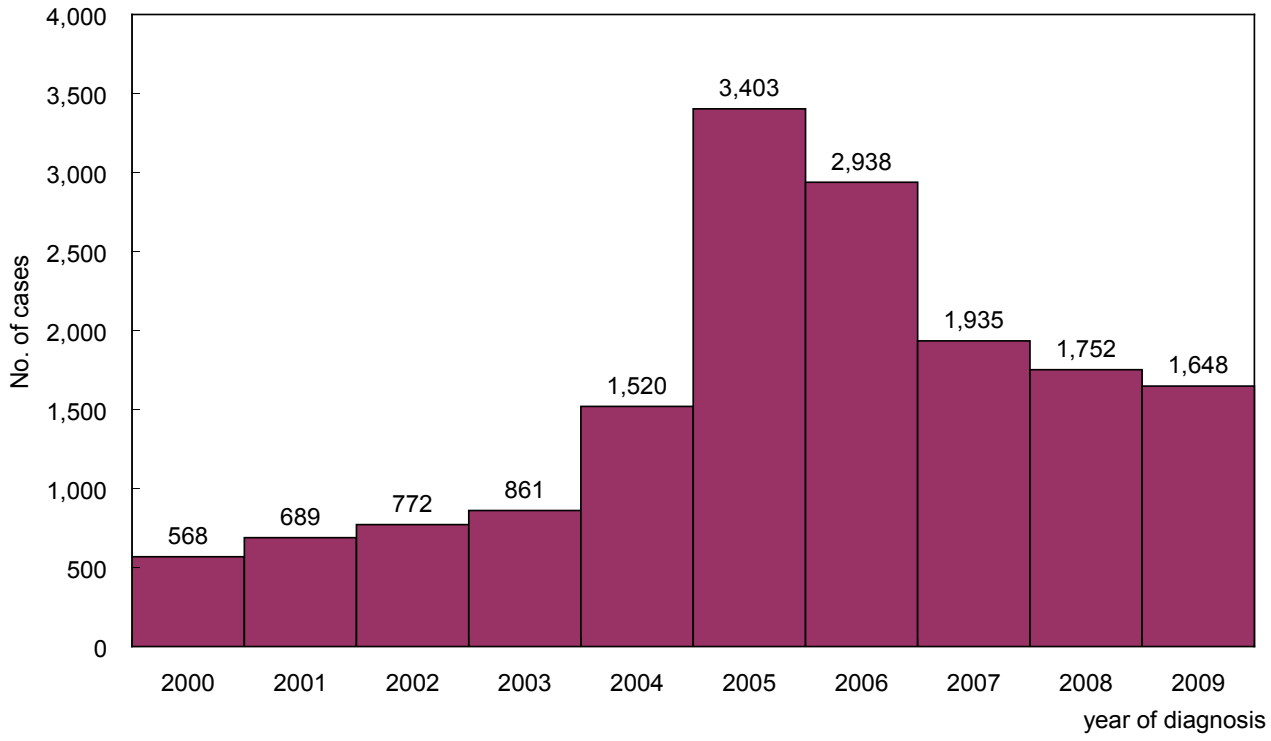


Figure 83 Number of HIV infection confirmed cases (foreigner excluded), 2000-2009

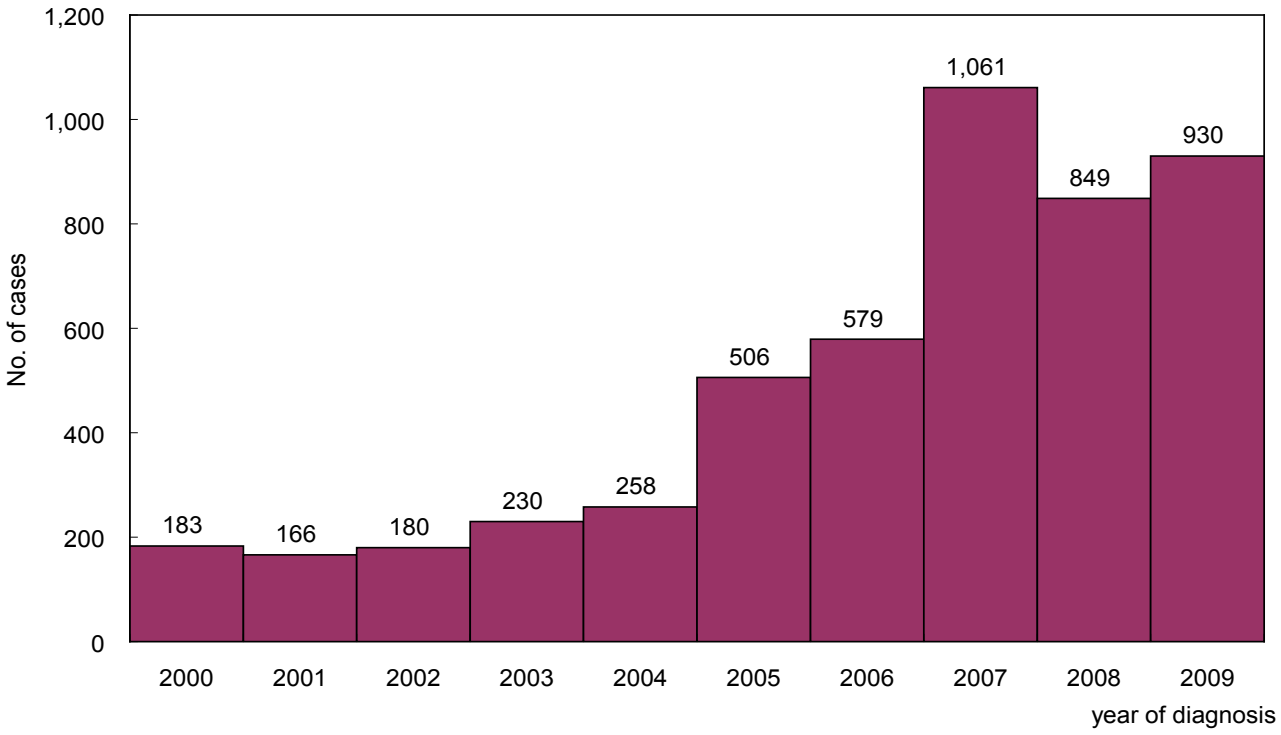


Figure 84 Number of AIDS confirmed cases (foreigner excluded), 2000-2009

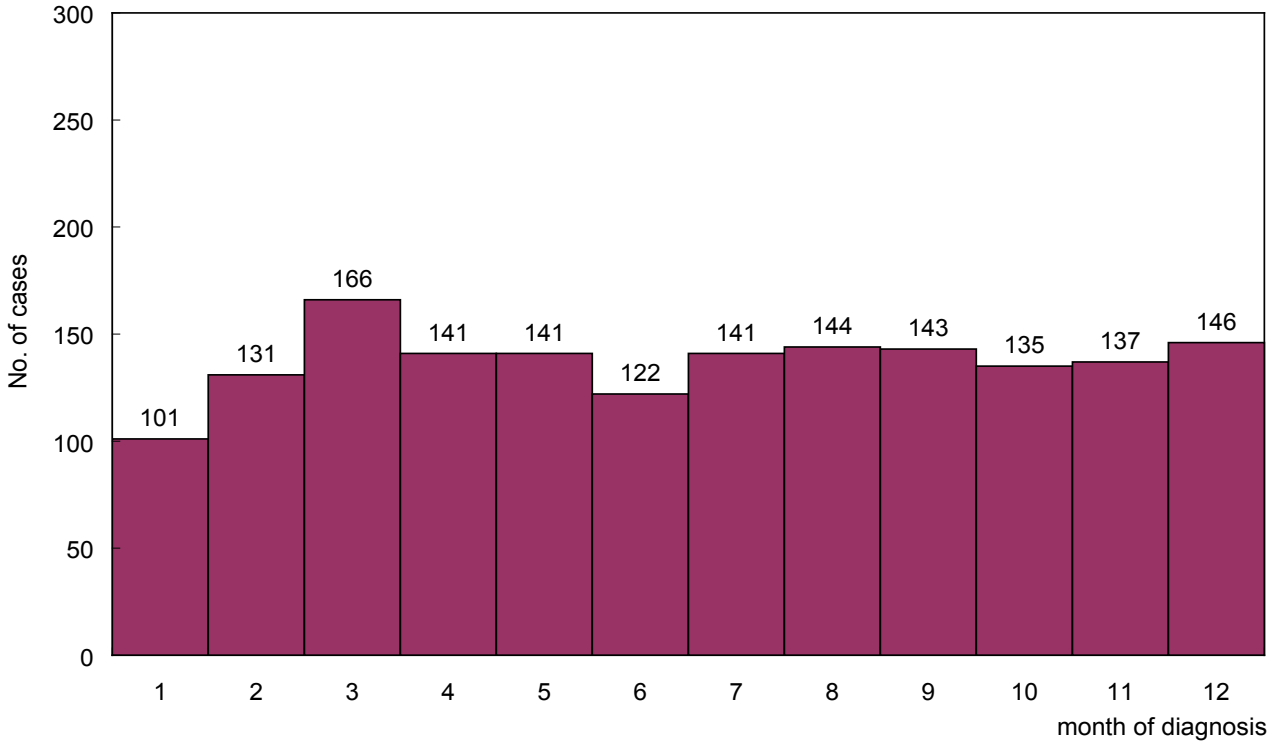


Figure 85 Number of HIV infection confirmed cases (foreigner excluded), 2009

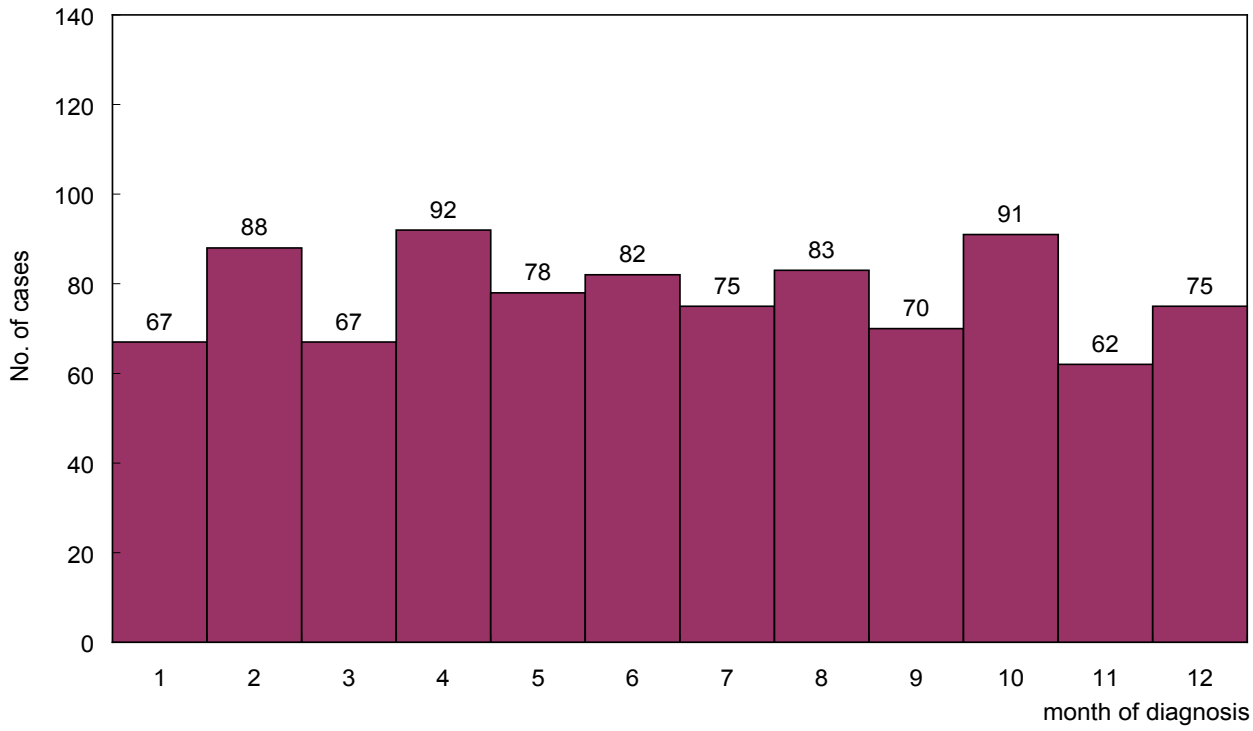


Figure 86 Number of AIDS confirmed cases (foreigner excluded), 2009

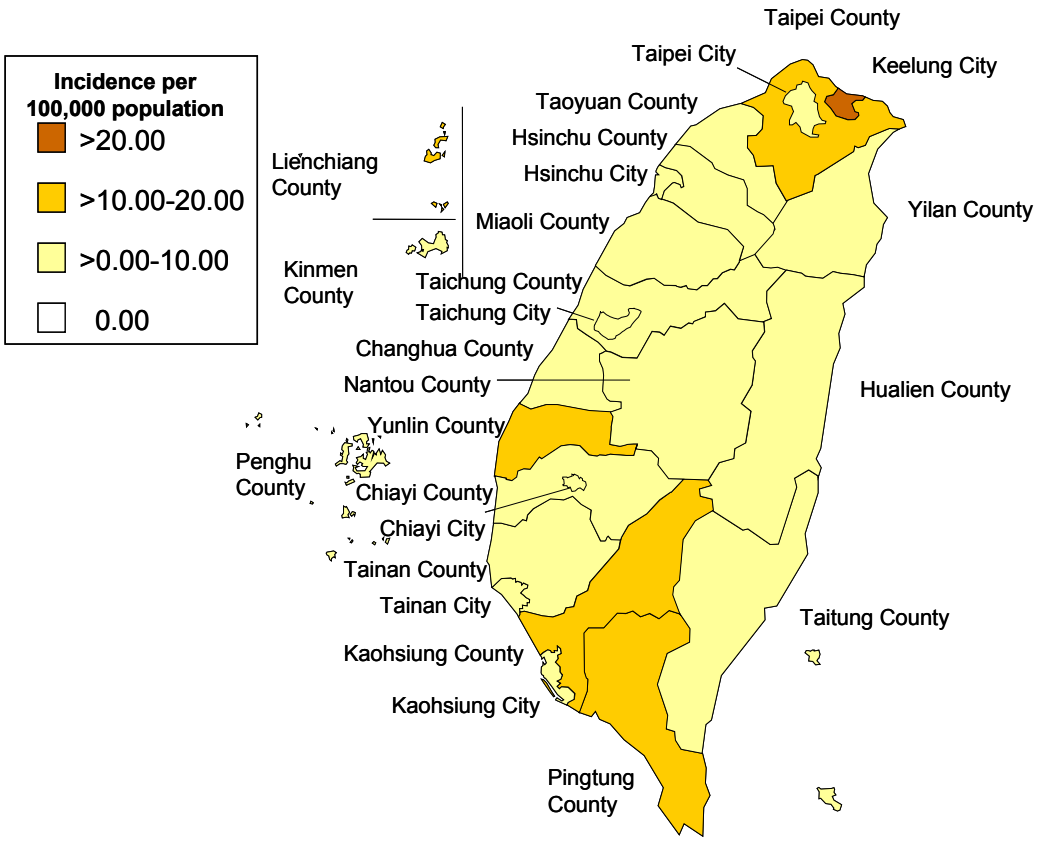


Figure 87 Geographical distribution by incidence of HIV infection confirmed cases (foreigner excluded), 2009

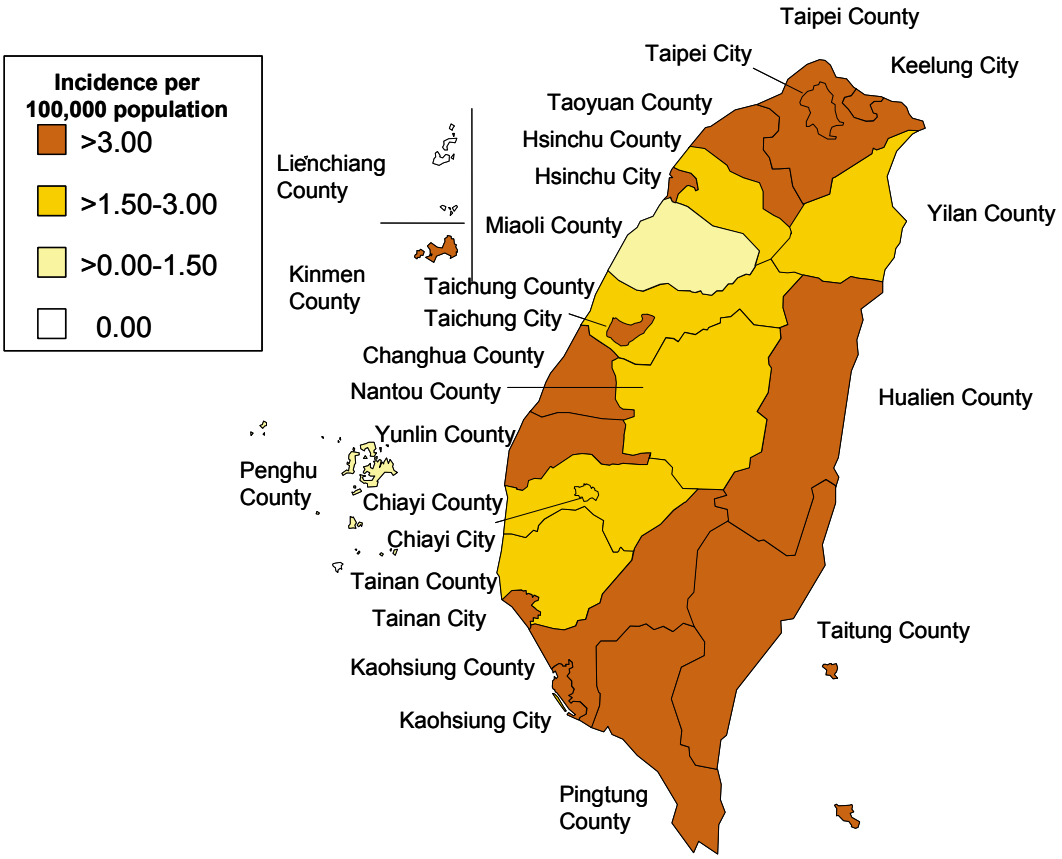


Figure 88 Geographical distribution by incidence of AIDS confirmed cases (foreigner excluded), 2009

Tuberculosis

In 2009, a total of 13,336 tuberculosis cases were confirmed (incidence rate= 58/100,000). In 2008, 14,265 tuberculosis cases were confirmed (incidence rate= 62/100,000) so the number of cases and incidence rate in 2009 both decreased by 6.5% and 6.8% respectively as compared with those in 2008. These confirmed cases were statistically analyzed, and the results are as follow:

(1) Sex

There were 9,261 males (69.4%) and 4,075 females (30.6%) so the number of male cases is about 2.3 times higher than that of female cases. The incidence rate of male tuberculosis was 79.6 and that of female tuberculosis was 35.6. The former is about 2.2 times higher than the later.

(2) Age

The case number and incidence rate per 100,000 people increased significantly with age. There were 100 cases between 0-14 years of age; 682 between 15-24; 892 between 25-34; 1,084 between 35-44; 1,675 between 45-54; 1,825 between 55-64;7,078 above 65 years. The number of cases above 65 years of age totaled at 53.1% of the whole.

(3) Month of onset (based on notification date)

Tuberculosis cases were reported in all months. The highest number of cases was reported in June (1,231), and the lowest was reported in January (918).

(4) Residential Region

In view of geographical variations, the incidence rate of tuberculosis in the east was higher than that in the west, and higher in the south than in the north. The highest incidence rate was 113.3 in Taitung County; the second and third highest incidence rates were 109.0 and 89.8 respectively in Hualien County and Pingtung County. The incidence rates in Penghu County and Kinmen County, being 25.3 and 23.5 respectively, were the lowest.

(5) Dead cases

A total of 748 people died of tuberculosis in 2009, marking the mortality rate as of 3.2/100,000, and 0.5% of the total deaths. There were 566 male deaths and 182 female deaths, with the sex ratio at 3.1 : 1.0. The male mortality rate per 100,000 people was 4.9 whereas the female mortality rate per 100,000 people was 1.6.

The mortality rate increased with age. Out of the 748 cases died of tuberculosis, 81% (609 cases)

were elderly at the age of 65 or above.

The highest tuberculosis mortality rate was found in Taitung County as up to 10.8/100,000, and the second and third highest mortality rates were found in Hualien County (8.2/100,000) and Pingtung County (6.6/100,000). On the overall distribution, the east and the south had a higher rate and the north had a lower rate.

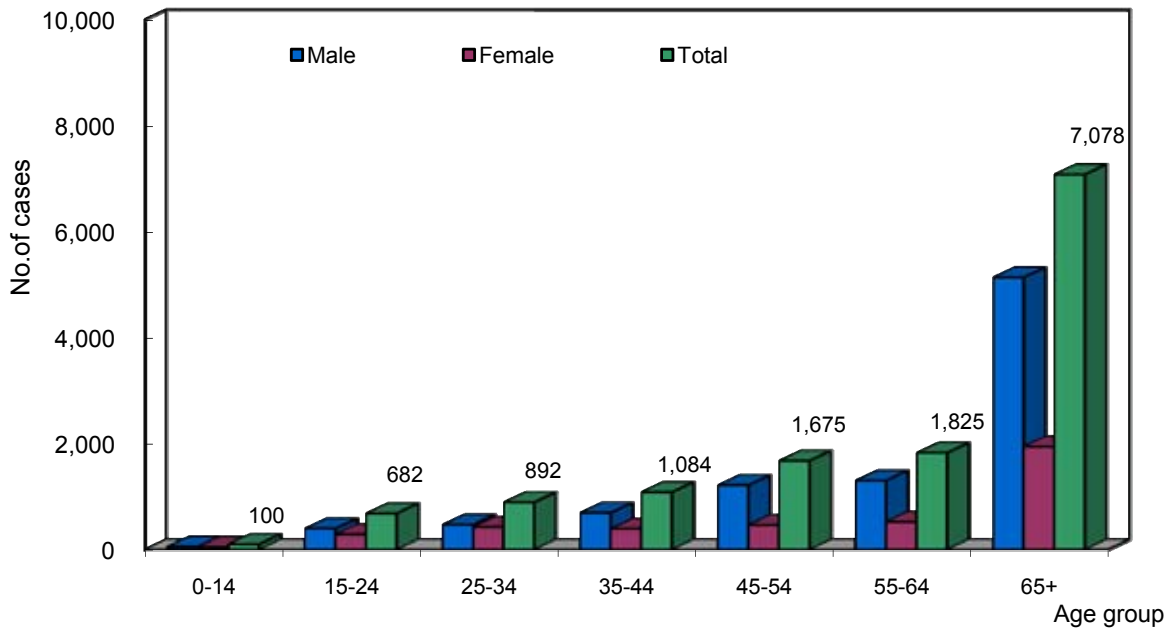


Figure 89 Tuberculosis cases number by age group and sex, 2009

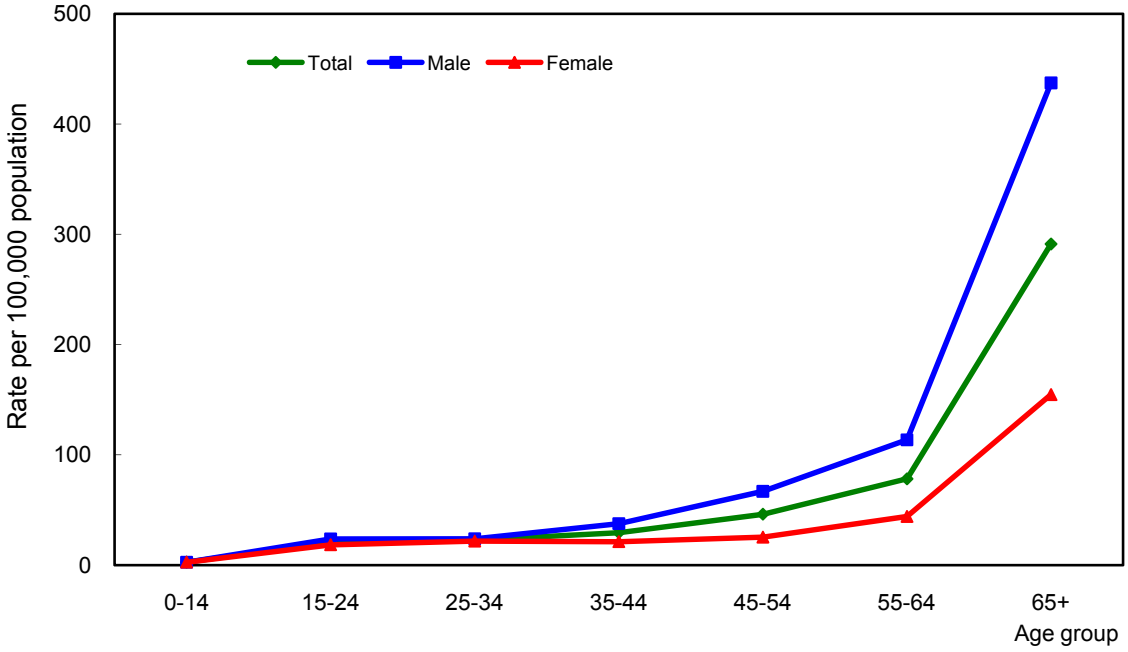


Figure 90 Incidence rate of Tuberculosis by age group and sex, 2009

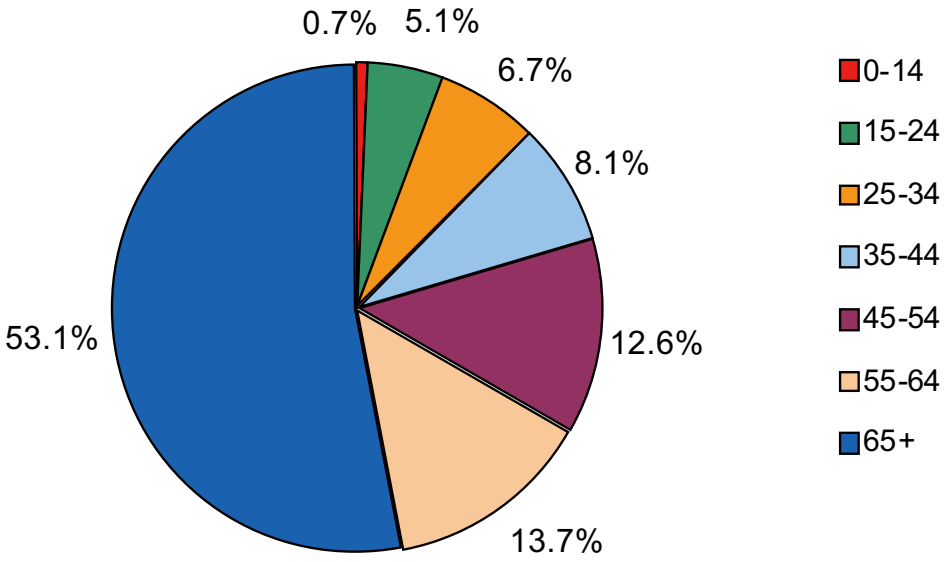


Figure 91 Distribution of Tuberculosis incidence by age group, 2009

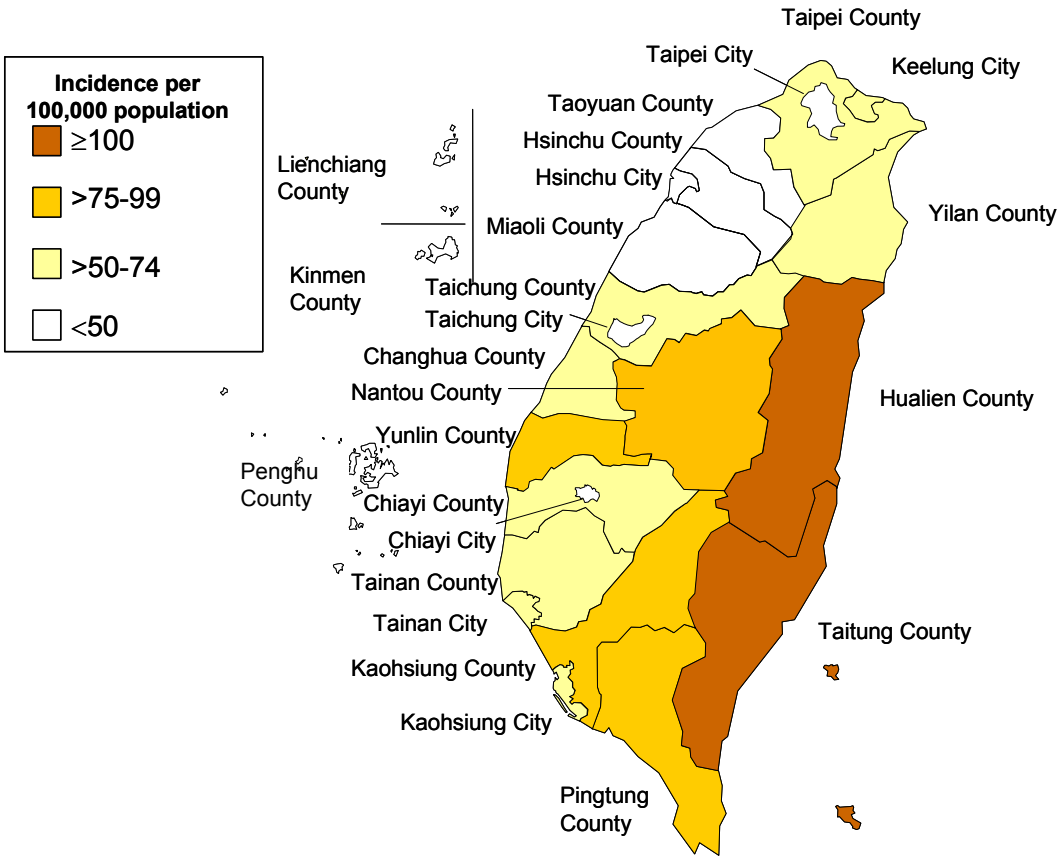


Figure 92 Geographical distribution by incidence of Tuberculosis cases, 2009

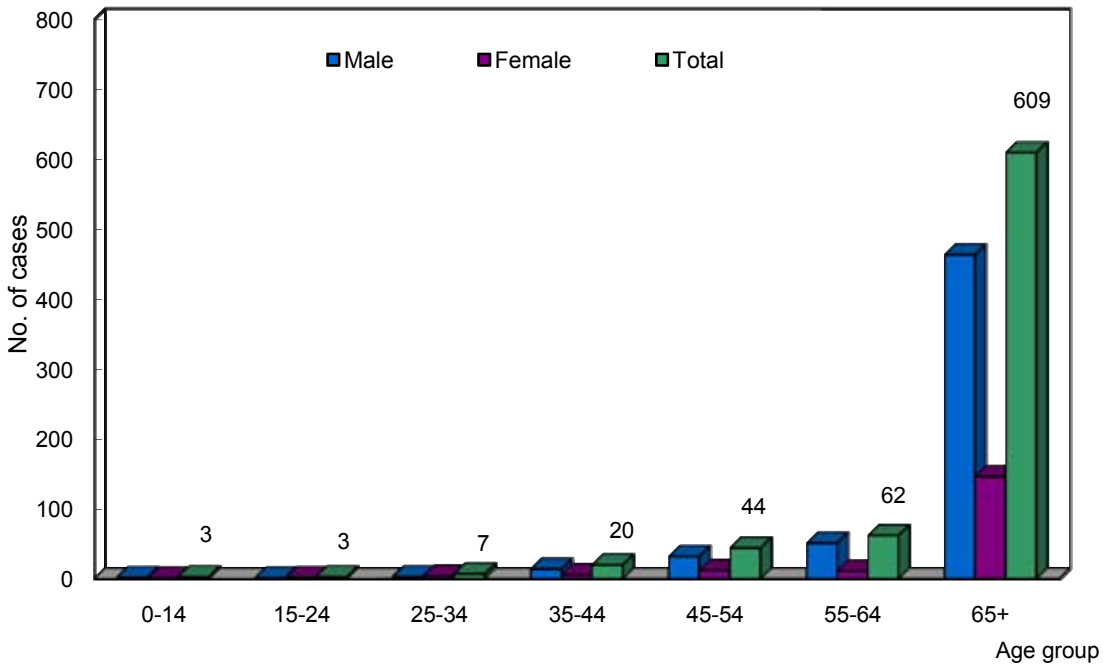


Figure 93 Mortality number of Tuberculosis by age group and sex, 2009

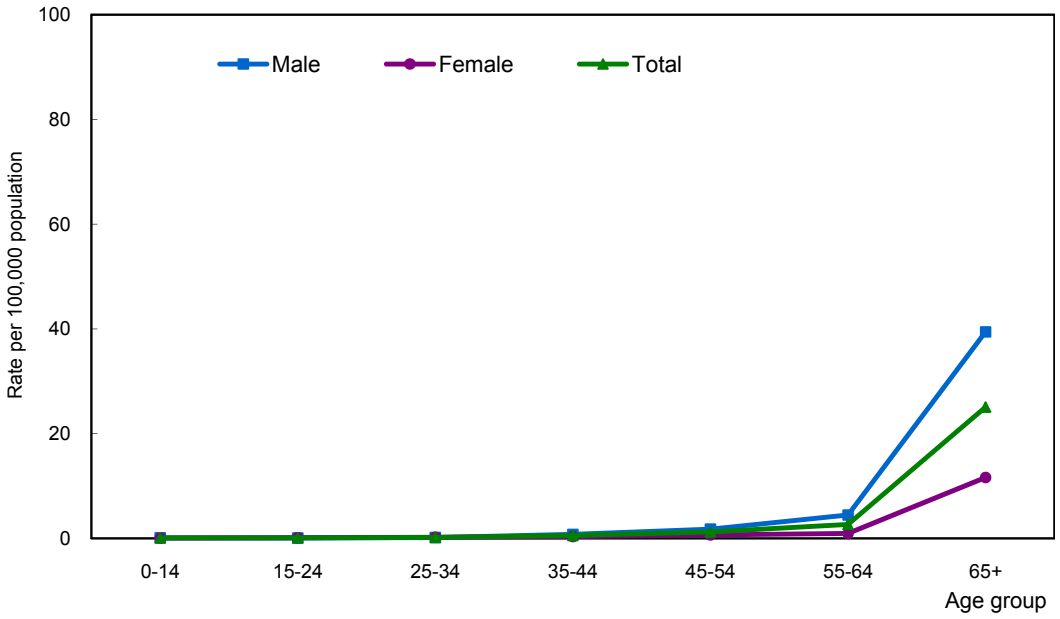


Figure 94 Mortality rate of Tuberculosis by age group and sex, 2009

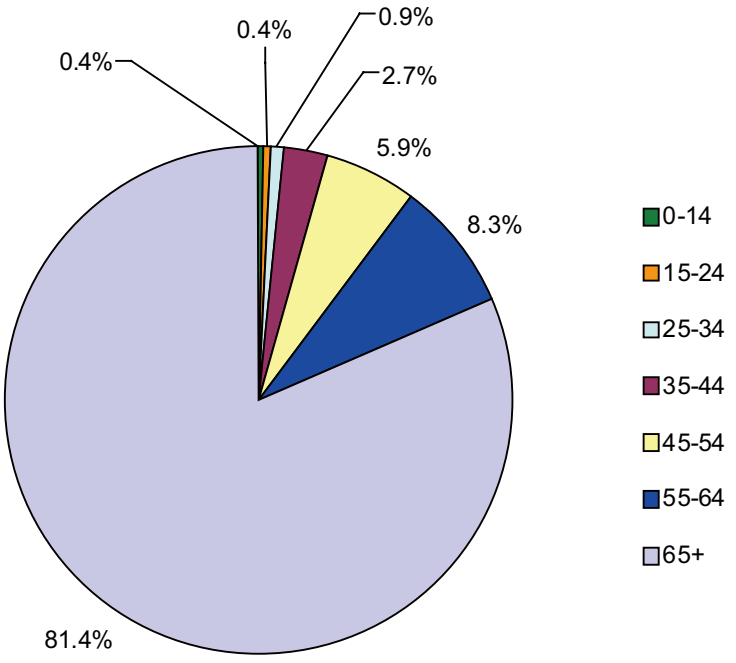


Figure 95 Distribution of Tuberculosis mortality by age group, 2009

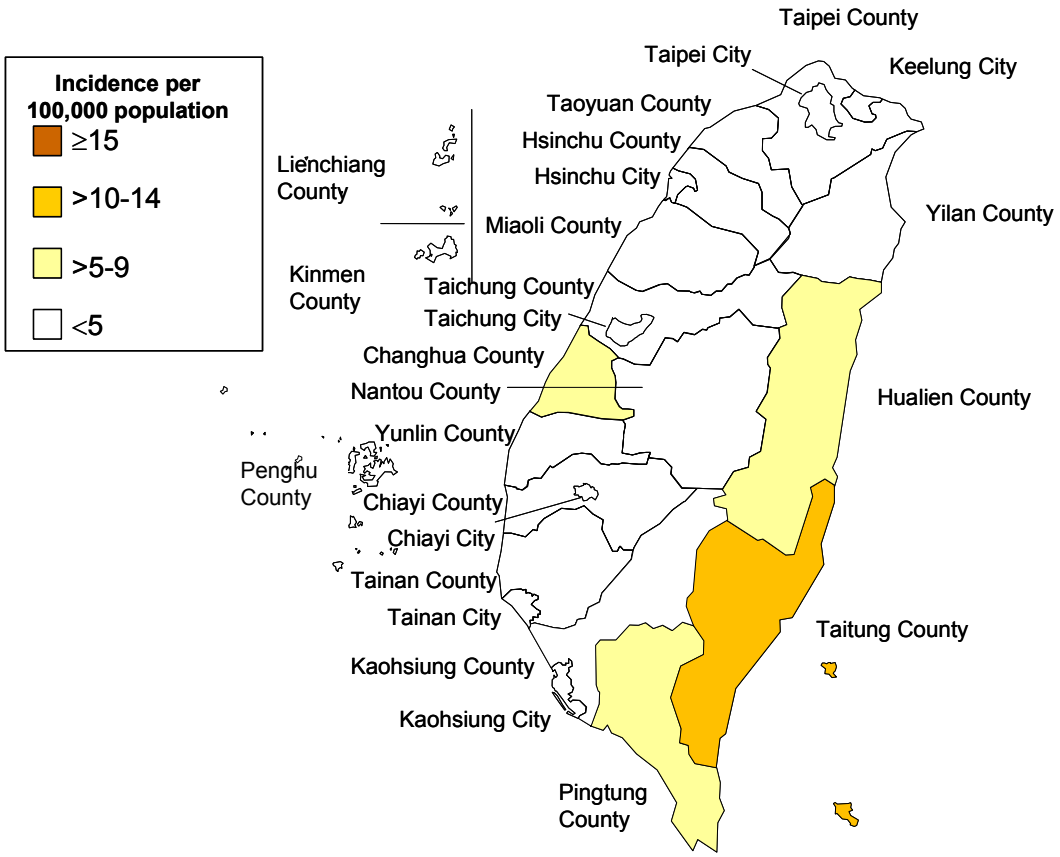


Figure 96 Geographical distribution by mortality of confirmed Tuberculosis cases, 2009

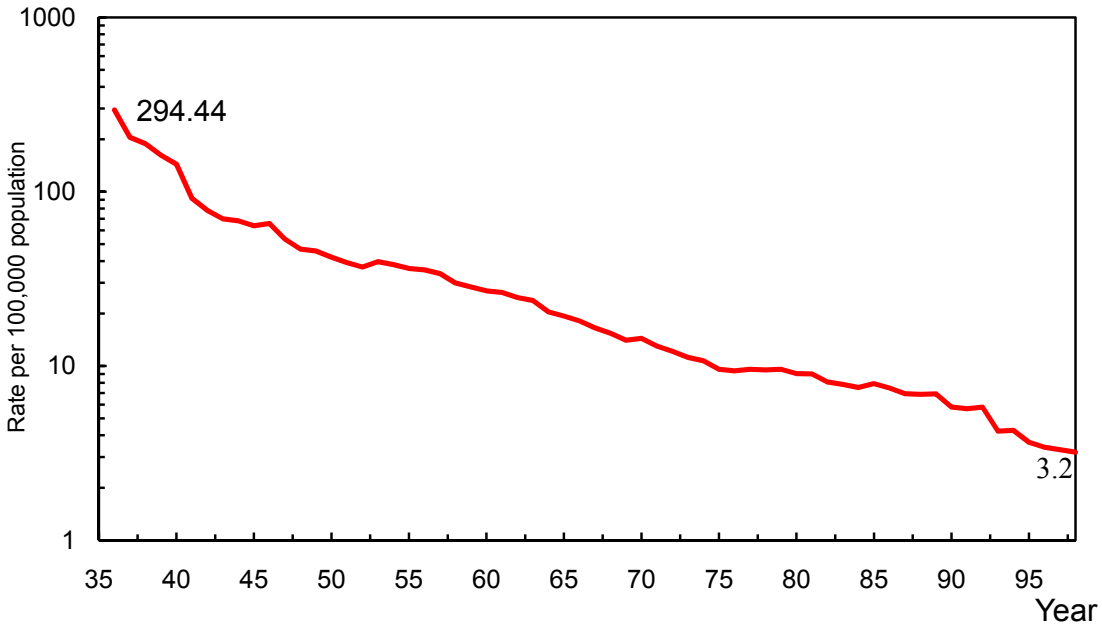


Figure 97 Trend of Tuberculosis mortality rate by year

Table 30 Confirmed tuberculosis cases—by geographical distribution, 2009

Locality	Midyear population	Total Death number	Death number from TB	Per 100,000 population	%
Taiwan	**23,078,402**	**142,240**	**748**	**3.2**	**0.5**
Taipei County	3,853,692	17,773	89	2.3	0.5
Yilan County	461,263	3,307	18	3.9	0.5
Taoyuan County	1,968,734	9,730	45	2.3	0.5
Hsinchu County	507,077	3,179	15	3.0	0.5
Miaoli County	561,071	4,250	15	2.7	0.4
Taichung County	1,560,035	8,550	34	2.2	0.4
Changhua County	1,312,701	8,816	78	5.9	0.9
Nantou County	531,288	4,205	23	4.3	0.5
Yunlin County	723,235	6,429	29	4.0	0.5
Chiayi County	548,224	4,736	16	2.9	0.3
Tainan County	1,104,449	8,544	35	3.2	0.4
Kaohsiung County	1,243,192	9,020	59	4.7	0.7
Pingtung County	883,739	7,312	58	6.6	0.8
Taitung County	232,173	2,296	25	10.8	1.1
Hwalien County	341,198	3,008	28	8.2	0.9
Penghu County	94,759	761	-	0.0	0.0
Keelung City	388,650	2,550	10	2.6	0.4
Hsinchu City	408,479	2,196	10	2.4	0.5
Taichung City	1,069,882	5,145	23	2.1	0.4
Chiayi City	273,827	1,714	12	4.4	0.7
Tainan City	769,756	4,328	23	3.0	0.5
Taipei City	2,615,176	14,870	61	2.3	0.4
Kaohsiung City	1,526,778	9,023	40	2.6	0.4
Kinmen County	89,187	457	2	2.2	0.4
Lienchiang County	9,837	41	-	0.0	0.0

Table 31 Mortality of Tuberculosis—by age & sex, 2009

Age	Tuberculosis			Male			Female		
	Midyear population	Death number	Per 100,000 population	Midyear population	Death number	Per 100,000 population	Midyear population	Death number	Per 100,000 population
Total	23,078,402	748	3.2	11,631,543	566	4.9	11,446,859	182	1.6
0-4	1,014,183	-	0.0	529,752	-	0.0	484,431	-	0.0
5-9	1,287,899	2	0.2	672,780	1	0.1	615,119	1	0.2
10-14	1,539,529	1	0.1	800,919	1	0.1	738,610	-	0.0
15-19	1,612,140	-	0.0	840,382	-	0.0	771,758	-	0.0
20-24	1,616,115	3	0.2	832,216	1	0.1	783,899	2	0.3
25-29	1,972,704	-	0.0	997,187	-	0.0	975,517	-	0.0
30-34	1,949,382	7	0.4	976,005	3	0.3	973,377	4	0.4
35-39	1,814,291	13	0.7	906,151	8	0.9	908,140	5	0.6
40-44	1,873,314	7	0.4	941,571	6	0.6	931,743	1	0.1
45-49	1,900,661	19	1.0	952,736	13	1.4	947,925	6	0.6
50-54	1,735,813	25	1.4	862,668	19	2.2	873,145	6	0.7
55-59	1,460,034	34	2.3	719,683	31	4.3	740,351	3	0.4
60-64	872,403	28	3.2	425,257	20	4.7	447,146	8	1.8
65+	2,429,934	609	25.1	1,174,236	463	39.4	1,255,698	146	11.6

Table 32 Confirmed tuberculosis cases—by geographical distribution, 2009

Locality	Total					Male					Female				
	Smear-positive	Others	Total	Midyear population	Per 100,000 population	Smear-positive	Others	Total	Midyear population	Per 100,000 population	Smear-positive	Others	Total	Midyear population	Per 100,000 population
Taiwan	5,210	8,126	13,336	23,078,402	57.8	3,727	5,534	9,261	11,631,543	79.6	1,483	2,592	4,075	11,446,859	35.6
Taipei County	817	1,287	2,104	3,853,692	54.6	592	834	1,426	1,920,396	74.3	225	453	678	1,933,296	35.1
Yilan County	98	182	280	461,263	60.7	69	124	193	235,784	81.9	29	58	87	225,479	38.6
Taoyuan County	338	583	921	1,968,734	46.8	253	408	661	995,279	66.4	85	175	260	973,455	26.7
Hsinchu County	86	151	237	507,077	46.7	57	100	157	261,657	60.0	29	51	80	245,420	32.6
Miaoli County	87	147	234	561,071	41.7	63	115	178	292,285	60.9	24	32	56	268,786	20.8
Taichung County	246	547	793	1,560,035	50.8	187	375	562	792,131	70.9	59	172	231	767,904	30.1
Changhua County	371	517	888	1,312,701	67.6	252	338	590	675,378	87.4	119	179	298	637,323	46.8
Nantou County	169	230	399	531,288	75.1	128	160	288	274,255	105.0	41	70	111	257,033	43.2
Yunlin County	221	349	570	723,235	78.8	150	238	388	378,674	102.5	71	111	182	344,561	52.8
Chiayi County	120	216	336	548,224	61.3	91	158	249	286,692	86.9	29	58	87	261,532	33.3
Tainan County	272	390	662	1,104,449	59.9	198	290	488	565,047	86.4	74	100	174	539,402	32.3
Kaohsiung County	434	573	1,007	1,243,192	81.0	326	397	723	638,370	113.3	108	176	284	604,822	47.0
Pingtung County	335	459	794	883,739	89.8	232	315	547	455,614	120.1	103	144	247	428,125	57.7
Taitung County	116	147	263	232,173	113.3	86	98	184	121,973	150.9	30	49	79	110,200	71.7
Hwalien County	160	212	372	341,198	109.0	113	142	255	176,591	144.4	47	70	117	164,607	71.1
Penghu County	8	16	24	94,759	25.3	6	13	19	48,796	38.9	2	3	5	45,963	10.9
Keelung City	96	115	211	388,650	54.3	65	79	144	196,404	73.3	31	36	67	192,246	34.9
Hsinchu City	49	100	149	408,479	36.5	27	71	98	203,515	48.2	22	29	51	204,964	24.9
Taichung City	159	348	507	1,069,882	47.4	113	233	346	521,475	66.4	46	115	161	548,407	29.4
Chiayi City	51	83	134	273,827	48.9	34	57	91	135,131	67.3	17	26	43	138,696	31.0
Tainan City	177	227	404	769,756	52.5	131	145	276	381,712	72.3	46	82	128	388,044	33.0
Taipei City	413	697	1,110	2,615,176	42.4	279	452	731	1,265,699	57.8	134	245	379	1,349,477	28.1
Kaohsiung City	377	536	913	1,526,778	59.8	268	380	648	756,435	85.7	109	156	265	770,343	34.4
Kinmen County	10	11	21	89,187	23.5	7	10	17	46,550	36.5	3	1	4	42,637	9.4
Lienchiang County	-	3	3	9,837	30.5	-	2	2	5,700	35.1	-	1	1	4,137	24.2
Unknown	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 33 Confirmed tuberculosis cases—by age & sex, 2009

Age	Total					Male					Female				
	Smear-positive	Others	Total	Midyear population	Per 100,000 population	Smear-positive	Others	Total	Midyear population	Per 100,000 population	Smear-positive	Others	Total	Midyear population	Per 100,000 population
Total	5,210	8,126	13,336	23,078,402	57.8	3,727	5,534	9,261	11,631,543	79.6	1,483	2,592	4,075	11,446,859	35.6
0-4	1	24	25	1,014,183	2.5	-	13	13	529,752	2.5	1	11	12	484,431	2.5
5-9	1	25	26	1,287,899	2.0	-	13	13	672,780	1.9	1	12	13	615,119	2.1
10-14	16	33	49	1,539,529	3.2	6	20	26	800,919	3.2	10	13	23	738,610	3.1
15-19	103	223	326	1,612,140	20.2	61	133	194	840,382	23.1	42	90	132	771,758	17.1
20-24	104	252	356	1,616,115	22.0	61	141	202	832,216	24.3	43	111	154	783,899	19.6
25-29	182	277	459	1,972,704	23.3	93	131	224	997,187	22.5	89	146	235	975,517	24.1
30-34	164	269	433	1,949,382	22.2	95	150	245	976,005	25.1	69	119	188	973,377	19.3
35-39	186	306	492	1,814,291	27.1	114	184	298	906,151	32.9	72	122	194	908,140	21.4
40-44	263	329	592	1,873,314	31.6	188	208	396	941,571	42.1	75	121	196	931,743	21.0
45-49	327	433	760	1,900,661	40.0	243	318	561	952,736	58.9	84	115	199	947,925	21.0
50-54	406	509	915	1,735,813	52.7	314	339	653	862,668	75.7	92	170	262	873,145	30.0
55-59	418	603	1,021	1,460,034	69.9	313	399	712	719,683	98.9	105	204	309	740,351	41.7
60-64	326	478	804	872,403	92.2	252	337	589	425,257	138.5	74	141	215	447,146	48.1
65+	2,713	4,365	7,078	2,429,934	291.3	1,987	3,148	5,135	1,174,236	437.3	726	1,217	1,943	1,255,698	154.7

Table 34 Confirmed tuberculosis cases—by aboriginal locality / township, 2009

Locality	Township	Smear-positive	Others	Total	Midyear population	Per 100,000 population
Total		215	255	470	198,930	236.3
Kaohsiung County	Maolin Township	2	1	3	1,813	165.5
Yilan County	Nanao Township	8	13	21	5,955	352.6
Hualien County	Sioulin Township	41	39	80	15,006	533.1
Nantou County	Renai Township	26	41	67	15,550	430.9
Taitung County	Yanping Township	8	1	9	3,594	250.4
Yilan County	Datong Township	4	11	15	5,909	253.9
Hualien County	Wanrong Township	9	9	18	7,014	256.6
Hualien County	Jhuosi Township	9	5	14	6,438	217.5
Hsinchu County	Jianshih Township	9	10	19	8,256	230.1
Pingtung County	Sandimen Township	3	5	8	7,431	107.7
Pingtung County	Shihzih Township	2	5	7	4,966	141.0
Pingtung County	Majia Township	8	11	19	6,484	293.0
Taitung County	Haiduan Township	5	6	11	4,536	242.5
Hsinchu County	Wufong Township	3	11	14	4,545	308.0
Kaohsiung County	Taoyuan Township	7	9	16	4,762	336.0
Taoyuan County	Fusing Township	14	12	26	10,533	246.8
Chiayi County	Alishan Township	3	7	10	6,200	161.3
Taichung County	Heping Township	8	9	17	10,766	157.9
Nantou County	Sinyi Township	17	9	26	17,263	150.6
Miaoli County	Taian Township	6	8	14	5,826	240.3
Taipei County	Wulai Township	1	4	5	5,676	88.1
Taitung County	Jinfong Township	1	4	5	3,427	145.9
Pingtung County	Laiyi Township	9	5	14	7,788	179.8
Taitung County	Daren Township	1	1	2	3,913	51.1
Pingtung County	Chunrih Township	3	2	5	4,896	102.1
Pingtung County	Taiwu Township	3	5	8	5,020	159.4
Kaohsiung County	Sanmin Township	1	4	5	3,463	144.4
Pingtung County	Mudan Township	2	5	7	4,935	141.8
Pingtung County	Wutai Township	1	1	2	2,799	71.5
Taitung County	Lanyu Township	1	2	3	4,166	72.0

IV Appendix
—Republic of China (Taiwan), 2009

◎ Abbreviations and Symbols Used in Table

— No reported cases.

▪ ▪ ▪ Not under surveillance.

List of cases number update

Appendix 1

Year	Measles		Hantavirus syndrome				Japanese Encephalitis		Hansen's Disease	
			Hemorrhagic fever with renal syndrome		Hantavirus pulmonary syndrome					
	reported	confirmed	reported	confirmed	reported	confirmed	reported	confirmed	reported	confirmed
2000	48	6	…	…	…	…	387	13	4	4
2001	50	10	2	2	2	2	400	33	2	2
2002	79	24	-	-	-	-	310	19	8	8
2003	59	6	-	-	-	-	309	25	9	9
2004	36	-	3	3	-	-	319	32	9	9

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

Year	Acute Hapatitis B		Acute Hepatitis E		Mumps		Varicella		HIV Infection		AIDS	
	reported	confirmed	reported	confirmed	reported	confirmed	reported	confirmed	reported	confirmed	reported	confirmed
2000	335	226	1	-	375	-	5,863	-	568	568	183	183
2001	367	355	1	1	444	-	5,316	-	689	689	166	166
2002	417	417	13	12	665	-	13,073	-	772	772	180	180
2003	334	327	12	11	676	-	12,273	-	861	861	230	230
2004	379	378	36	18	1,081	-	13,219	-	1,520	1,520	258	258

Note : 1. Before 2002, the cases of HIV Infection and AIDS were contained domestic citizens and foreigners, after that, the cases did not include foreign nationality.
2. The caseload of HIV infection and AIDS were estimated by the date of diagnosis.
3. The case numbers marked in red is currently updated.

Regulations for notifiable disease

Appendix 2

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

*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.

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

Appendix 3

Please protect patient's **privacy**

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

I. The Patient

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

II. Medical Record and Date

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

III. The Disease

Category I Communicable Diseases

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

Category II Communicable Diseases

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

Category III Communicable Diseases

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

Category IV Communicable Diseases

☐Herpesvirus B Infection
☐Leptospirosis ☐Melioidosis
☐Botulism
☐Invasive Pneumococcal Disease
☐Q fever ☐Murine Typhus
☐Lyme Disease ☐Tularemia
☐Scrub Typhus ☐Varicella
☐Cat-Scratch Disease
☐Toxoplasmosis
☐Severe Complicated Influenza Case
☐**Creutzfeldt-Jakob disease**

Category V Communicable Diseases

☐Rift Valley Fever
☐Marburg Haemorrhagic Fever
☐Yellow Fever
☐Ebola Haemorrhagic Fever
☐Lassa Fever

☐Others (0000)_____

IV. Remarks

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

For Health Agency

Signed by Person-in-charge		Signed by Section Chief	

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

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

Reply Letter

Express Mail

Floor __ No __ Alley __ Lane___ Section ___ Road / Street _____

_____ Township / District _____ County / City

To： Health Bureau, Disease Control Section

Floor __ No __ Alley __ Lane___ Section ___ Road / Street _____

_____ Township / District _____ County / City

Instructions for filling in the report：

(1) According to 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 pandemic influenza A (H1N1) from Category 1 notifiable communicable diseases. Any pandemic 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.

(2) 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.

(3) Botulism poisoning, Rabies：On detection of suspected cases, please contact health agencies immediately for anti-toxin, vaccines or immunoglobulin for treatment.

(4) 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).

(5) 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.

(6) HIV infection：Cases must be confirmed positive by the Western Blot assay. When reporting, hospitals shall attach laboratory testing report of positive by the Western Blot or indicate agent of confirmation testing.

AIDS：Cases must be confirmed positive by the Western Blot assay; cases are considered infected only when they show symptoms of opportunistic infections such as candidiasis or pneumocystis carinii pneumonia (PCP) ;an additional "report of AIDS case" should be filled out.

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

(7) 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.)

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

For further information, please contact：

_____Health Bureau, Disease Control Section

Hot Line：_____

2009 calendar for re-defined months

appendix 4

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

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

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

	October								November								December							
	Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat		Sun	Mon	Tue	Wed	Thu	Fri	Sat	
week 40	27	28	29	30	1	2	3	week 45	1	2	3	4	5	6	7	week 49	29	30	1	2	3	4	5	
week 41	4	5	6	7	8	9	10	week 46	8	9	10	11	12	13	14	week 50	6	7	8	9	10	11	12	
week 42	11	12	13	14	15	16	17	week 47	15	16	17	18	19	20	21	week 51	13	14	15	16	17	18	19	
week 43	18	19	20	21	22	23	24	week 48	22	23	24	25	26	27	28	week 52	20	21	22	23	24	25	26	
week 44	25	26	27	28	29	30	31		~~29~~	~~30~~						week 53	27	28	29	30	31	1	2	

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List of information providers

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Kinmen County Health Bureau
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