Annual Report
on
Findings of Infectious Agents in Japan
2004

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List of prefectural and municipal public health institute participating in the reporting system, 2004

Code number	Prefecture /city	Institute
011	Hokkaido P.	Hokkaido Institute of Public Health
012	Sapporo C.	Sapporo City Institute of Public Health
013	Hakodate C.	Hakodate City Institute of Public Health
021	Aomori P.	Aomori Prefectural Institute of Public Health and Environment
031	Iwate P.	Research Institute for Environmental Sciences and Public Health of Iwate Prefecture
041	Miyagi P.	Miyagi Prefectural Institute of Public Health and Environment
042	Sendai C.	Sendai City Institute of Public Health
051	Akita P.	Akita Research Center for Public Health and Environment
061	Yamagata P.	Yamagata Prefectural Institute of Public Health
071	Fukushima P.	Fukushima Institute of Public Health
081	Ibaraki P.	Ibaraki Prefectural Institute of Public Health
091	Tochigi P.	Tochigi Prefectural Institute of Public Health and Environmental Science
101	Gunma P.	Gunma Prefectural Institute of Public Health and Environmental Sciences
111	Saitama P.	Saitama Institute of Public Health
121	Chiba P.	Chiba Prefectural Institute of Public Health
122	Chiba C.	Chiba City Institute of Health and Environment
131	Tokyo M.	Tokyo Metropolitan Institute of Public Health
141	Kanagawa P.	Kanagawa Prefectural Institute of Public Health
142	Yokohama C.	Yokohama City Institute of Health
143	Kawasaki C.	Kawasaki City Institute for Public Health
144	Yokosuka C.	Yokosuka City Institute of Public Health
145	Sagamihara C.	Sagamihara City Institute of Public Health
151	Niigata P.	Niigata Prefectural Institute of Public Health and Environmental Sciences
152	Niigata C.	Niigata City Institute of Public Health and Environment
161	Toyama P.	Toyama Institute of Health
171	Ishikawa P.	Ishikawa Prefectural Institute of Public Health and Environmental Science
181	Fukui P.	Fukui Prefectural Institute of Public Health and Environmental Science
191	Yamanashi P.	Yamanashi Institute for Public Health
201	Nagano P.	Nagano Environmental Conservation Research Institute
211	Gifu P.	Gifu Prefectural Institute of Health and Environmental Sciences
212	Gifu C.	Hygienic Laboratory of Gifu City
221	Shizuoka P.	Shizuoka Institute of Environment and Hygiene
222	Shizuoka C.	Shizuoka City Institute of Public Health
223	Hamamatsu C.	Hamamatsu City Institute of Public Health
231	Aichi P.	Aichi Prefectural Institute of Public Health
232	Nagoya C.	Nagoya City Public Health Research Institute
241	Mie P.	Public Health and Environment Research Division, Mie Prefectural Science and Technology Promotion Center
251	Shiga P.	Shiga Prefectural Institute of Public Health and Environmental Science
261	Kyoto P.	Kyoto Prefectural Institute of Public Health and Environment
262	Kyoto C.	Kyoto City Institute of Health and Environmental Sciences
271	Osaka P.	Osaka Prefectural Institute of Public Health
272	Osaka C.	Osaka City Institute of Public Health and Environmental Sciences
273	Sakai C.	Sakai City Institute of Public Health
281	Hyogo P.	Hyogo Prefectural Institute of Public Health and Environmental Sciences
282	Kobe C.	Kobe City Institute of Health
283	Himeji C.	Himeji City Institute of Environment and Health
284	Amagasaki C.	Amagasaki City Institute of Public Health
291	Nara P.	Nara Prefectural Institute for Hygiene and Environment
301	Wakayama P.	Wakayama Prefectural Research Center of Environment and Public Health
302	Wakayama C.	Wakayama City Institute of Public Health
311	Tottori P.	Tottori Prefectural Institute of Public Health and Environmental Science
321	Shimane P.	Shimane Prefectural Institute of Public Health and Environmental Science
331	Okayama P.	Okayama Prefectural Institute for Environmental Science and Public Health
341	Hiroshima P.	Hiroshima Prefectural Health Environment Center
342	Hiroshima C.	Hiroshima City Institute of Public Health
351	Yamaguchi P.	Yamaguchi Prefectural Research Institute of Public Health
361	Tokushima P.	Tokushima Prefectural Institute of Public Health and Environmental Sciences

371	Kagawa P.	Kagawa Prefectural Research Institute for Environmental Sciences and Public Health
381	Ehime P.	Ehime Prefectural Institute of Public Health and Environmental Science
391	Kochi P.	The Public Health Institute of Kochi Prefecture
401	Fukuoka P.	Fukuoka Institute of Health and Environmental Sciences
402	Fukuoka C.	Fukuoka City Institute for Hygiene and the Environment
403	Kitakyushu C.	Kitakyushu City Institute of Environmental Sciences
411	Saga P.	Saga Prefectural Institute of Public Health and Pharmaceutical Research
421	Nagasaki P.	Nagasaki Prefectural Institute of Public Health and Environmental Sciences
422	Nagasaki C.	Nagasaki Municipal Public Health and Environment Laboratory
431	Kumamoto P.	Kumamoto Prefectural Institute of Public Health and Environmental Science
432	Kumamoto C.	Kumamoto City Environmental Research Institute
441	Oita P.	Oita Prefectural Institute of Health and Environment
451	Miyazaki P.	Miyazaki Prefectural Institute for Public Health and Environment
461	Kagoshima P.	Kagoshima Prefectural Institute for Environmental Research and Public Health
471	Okinawa P.	Okinawa Prefectural Institute of Health and Environment

P.: Prefecture C.: City M.: Metropolitan

List of quarantine stations participating in the reporting system, 2004

Chitose Airport Branch Office, Otaru Quarantine Station
Narita Airport Quarantine Station
Chubu Airport Branch Office, Nagoya Quarantine Station
Kansai Airport Quarantine Station
Hiroshima Airport Branch Office, Hiroshima Quarantine Station
Fukuoka Airport Branch Office, Fukuoka Quarantine Station
Naha Airport Branch Office, Naha Quarantine Station

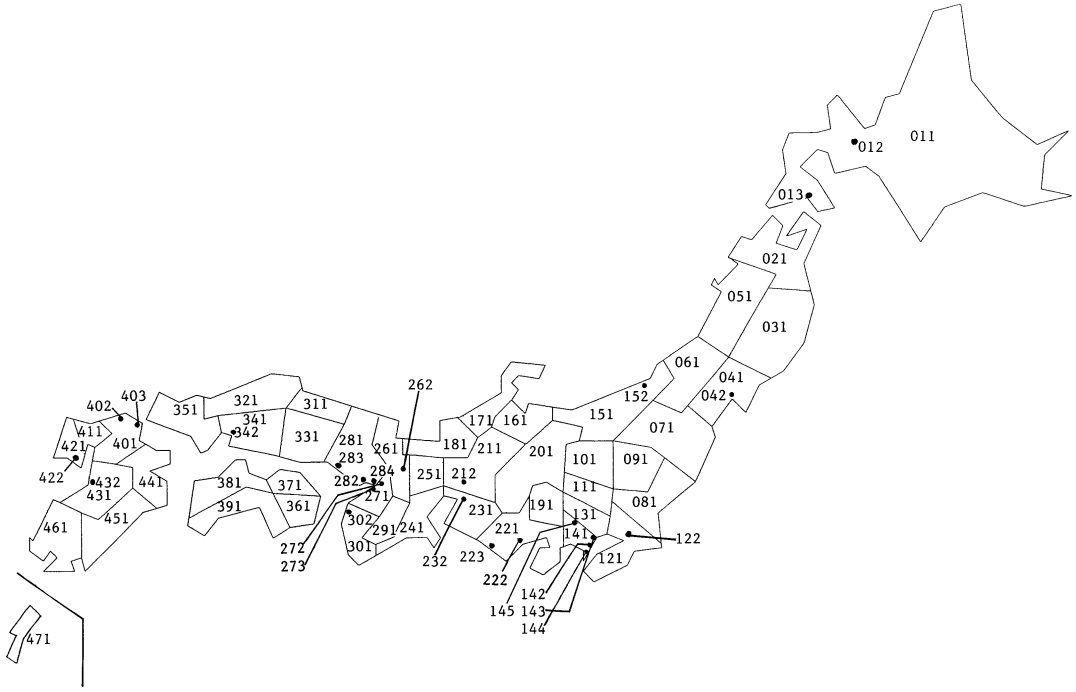

Fig. 1. Code number of prefectural and municipal public health institutes participating in the reporting system, 2004.

Foreword

This is the *2004 Annual Report on Findings of Infectious Agents in Japan*. Since the National Epidemiological Surveillance of Infectious Diseases was established in July 1981, it has been providing a valuable source of information necessary to take effective countermeasures against the prevention and control of infectious diseases in Japan. Under this program before April 1999, 27 infectious diseases were specified to be surveyed at designated sentinels in each prefecture, and the epidemiological data on both patients and pathogens has been gathered through nationwide surveillance network systems.

Infectious Disease Surveillance Center (IDSC) under National Institute of Infectious Diseases (NIID) serves as an information center where laboratory data on pathogens are collected, analyzed and distributed for public use in collaboration with various institutions such as prefectural and municipal public health institutes, quarantine stations, designated hospitals and health centers. Some departments other than IDSC of NIID function also as national reference laboratories for standardization of the diagnostic methods and reagents used at central and regional public health laboratories. It is noteworthy that such reference activities have strengthened cooperative relationships among many organizations participating in this surveillance program and that the quality of laboratory data obtained through the surveillance network has been much improved during the last decade.

In April 1999, the Law Concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections (the Infectious Diseases Control Law) was enacted (see p. 16-19 of this issue) and partially amended on November 5, 2003 (http://idsc.nih.go.jp/iasr/25/287/tpc287.html). Relatively important 58 infectious diseases newly specified to be notified by all physicians to nearby health centers (see p. 19 of this issue). The weekly numbers of cases with common infectious diseases at sentinel clinics has been also reported to the health centers, in continuation of the surveillance system started in 1981. Those data are sent to IDSC through a national computer network (WISH-NET) organized by Ministry of Health and Welfare in 1987.

In parallel with the disease surveillance, data on the infectious agents detected from some of the patients at prefectural and municipal public health institutes and quarantine stations are also sent to IDSC through another system on the WISH-NET installed in 1997. This on-line system has been improved since January 2000 in accordance with the above Law. This annual report deals with the data on the infectious agent surveillance in 2004.

NIID together with Tuberculosis and Infectious Diseases Control Division, Ministry of Health, Labour and Welfare publishes a monthly report, *Infectious Agents Surveillance Report* (*IASR*) from 1983. To address the need for wider distribution and utilization of the *IASR* information, the special review article on a selected topic has been translated into English since January 1993 and distributed to relevant institutions including major overseas institutions every month, together with the original article written in Japanese. The English articles, THE TOPIC OF THIS MONTH from the January issue of 2005 to the December issue of 2005 are contained in this 2004 annual report. We hope the publication of this annual report will provide useful information to clinical and research organizations and also to public health administrators.

Finally, I would like to express my sincere thanks to all the organizations and individuals participating in this surveillance program for their sustained efforts and enthusiastic cooperation which have made this publication possible.

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Infectious Disease Surveillance Center
Chairman,
Editorial Committee of Infectious Agents Surveillance Report
National Institute of Infectious Diseases

Annual Report on Findings of Infectious Agents in Japan, 2004

1. The surveillance system for collecting and distributing the information of infectious agents

History and Organization

Collection and distribution of the information on laboratory findings of infectious agents were initiated by the working group of the Research Project for Development of a Surveillance System of Pathogenic Microbes in Japan (1979-1982) (leader Hiromasa Inoue, Former Director, Aichi Prefectural Institute of Public Health). As a result of the cooperation among prefectural and municipal public health institutes (PHIs) and the National Institute of Infectious Diseases (NIID, former National Institute of Health), the infectious agent surveillance system was established.

In 1981, when the National Epidemiological Surveillance of Infectious Diseases (NESID) program was inaugurated, both the pathogen and patient information systems were considered to be inseparable like the two wheels of a cart (Fig. 2). However, the report of pathogen information from laboratory comes out usually after that of patient information, and technical and professional quality controls were needed for their reliability. Therefore, the function of this system, being independent of patient information, was undertaken by two committees, the Editorial Committee for *Infectious Agents Surveillance Report* (*IASR*), NIID, and the Committee for Laboratory-based Information, the Association of Public Health Laboratories for Microbiological Technology. The daily function of the information center has been undertaken by the Infectious Disease Surveillance Center (IDSC), NIID.

A computer network was installed for the patient information system in 1987. That for pathogen information was investigated by a working group of the Research Project for Development of a Surveillance System of Pathogenic Microbes in Japan (leader, Makoto Ohashi, Former Director, Tokyo Metropolitan Research Laboratory of Public Health) for three years (1988-1991), but the plan was not conducted for a while. After a three-year trial (1994-1996), the network started to function in January 1997 as the National Electronic Data Transfer System for Laboratory Findings of Infectious Agents utilizing the Wide-area Information-exchange System for Health and Welfare Administration (WISH) by the Ministry of Health, Labour and Welfare (MHLW, former Ministry of Health and Welfare) and the Value Added Network (VAN) (Fig. 2). As a result of the on-line system between PHIs/quarantine stations and NIID, rapid information exchange by electronic mail/board has become possible.

In compliance with the Law concerning the Prevention of Infectious Diseases and Medical Care for Patients of Infections (hereafter referred to as the Infectious Diseases Control Law) enacted in April 1999, the on-line system has revised in January 2000 (Version 4).

Contents and Collection of Information

The infectious agents surveillance information deals with such pathogenic agents as bacteria, fungi, spirochetes, protozoa, viruses, rickettsiae, and chlamydiae. The data are collected in two large categories for the convenience; bacterial pathogens (including fungi, spirochetes, and protozoa) and viral pathogens (including rickettsiae and chlamydiae).

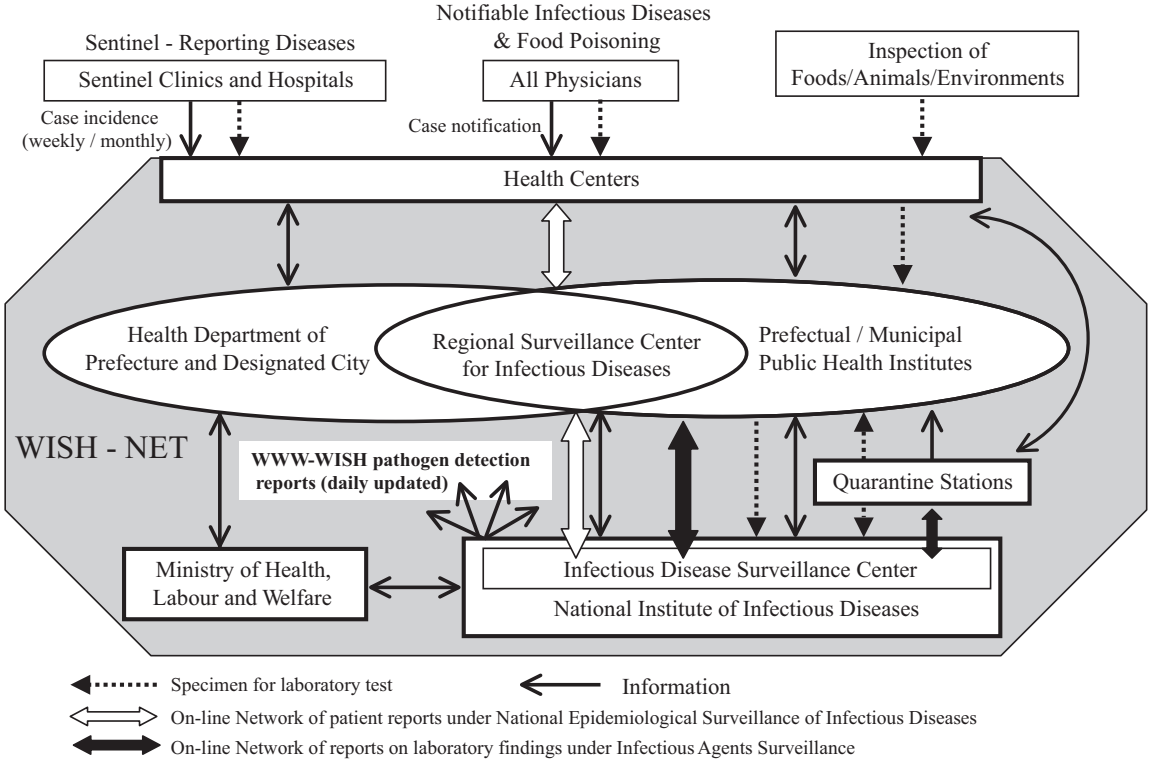

Fig. 2. Network of National Epidemiological Surveillance of Infectious Diseases in Japan.

Through the on-line system, the information on bacterial pathogens is collected from (a) PHIs and health centers (HCs) and (b) quarantine stations, and that on viral pathogens from PHIs. In 2004, PHIs in 47 prefectures and 25 designated cities and eight quarantine stations listed on p. 4-5 cooperated.

The figures for bacterial pathogens from (a) and (b) are totaled separately as follows.

(a) PHIs/HCs: Results of tests conducted for administrative purposes on a public health standpoint are reported. Investigations mainly of infectious disease epidemics and food poisoning outbreaks, and tests for safety assessment of food, for environmental pollution, and for infectious agent surveillance under the NESID are included.

A PHI, playing two roles, the reference center and the infectious agents surveillance center in the district, not only performs the laboratory tests but also collects the results of laboratory tests conducted by HCs in the district. These results are concluded in the report form A from PHIs/HCs (Form A, Fig. 3 on p. 10-12) and are sent on a monthly basis to IDSC, NIID. The more detailed results of serotyping of *Salmonella* and group A *Streptococcus* has been included in form A to collect on a monthly basis through the on-line system since January 2000 (before 2000, these serotyping data were collected on a yearly basis and sent out by conventional mail). In addition, PHIs provide also information on individual bacterial isolation in the Individual Report (Form B, Fig. 4 on p. 13) including serotypes, toxin types, the date of specimen collection, specimens, and age, gender and clinical symptoms of EHEC/VTEC-infected cases and other important patients. They provide also the Outbreak Report (Form C, Fig. 5 on p. 14), Food Examination Report and Surveillance Report for Environmental Sources and for Animals (Form D, Fig. 6 on p. 15). On the other hand, form E categorized by source of specimen used to be sent from PHIs on a monthly basis to IDSC, NIID from1990 to collect the results of tests conducted for the purpose of diagnosis and treatment of infectious disease patients at general clinical institutions (GCIs), is tabulated at each PHI from 2000 for the analysis of the trend in each district.

(b) Quarantine stations: The data of examinations for the quarantine infectious diseases in compliance with the Quarantine Law, particularly of enteric infections, of overseas travelers (imported cases) are reported. Each quarantine station send individual bacterial information with patient's age, gender, clinical symptoms, and estimated districts of acquiring infection in the Individual Report (Form B, Fig. 4 on p. 13) and that of traveler's diarrhea outbreak in the Outbreak Report (Form C, Fig. 5 on p. 14).

The virus reports from PHIs are the results of etiological diagnosis (including those conducted under NESID), the National Epidemiological Surveillance of Vaccine-Preventable Diseases, and the periodic sentinel surveys and specified research projects of the individual PHIs. When examinations are completed, PHIs input the individual data of isolated/detected viruses in the Individual Report for virus detections from human sources (Form B, Fig. 4 on p. 13) to be sent immediately. The virus report includes the patient's age, gender, and clinical symptoms, and the date of specimen collection, specimens and the method of examination. If a influenza virus isolated, PHI reports the strain name and the results of hemagglutination-inhibition test of the strain together with the virus report. The strain surveillance kits are supplied to PHIs by the Department of Virology III, NIID, the National and WHO Collaborating Center for Influenza. When an incident of such viral disease as nonbacterial gastroenteritis involving two or more cases occurs in a community, its data are input in the Outbreak Report (Form C, Fig. 5 on p. 14), to be sent for rapid exchange of information. Moreover, the viruses isolated from food, animals, or the environment (river water and sewage) are input into the Reports of Food Examinations and Surveillance for Environmental Sources and for Animals (Form D, Fig. 6 on p. 15) to be provided.

Separately from the on-line system, the Laboratory of Enteric Infections II, the Department of Bacteriology, NIID submits phage typing results of *Salmonella* Typhi and *S.* Paratyphi A isolates (see p. 93-96). The isolates are sent from various institutions to NIID in accordance with the notice #788, November 16, 1966, "on the implementation of countermeasures for typhoid and paratyphoid fevers," issued by the director of the Bureau of Public Health, MHLW.

In addition, a total of 16 infectious diseases hospitals (IDHs) in 13 cities report the results of etiological diagnoses of all inpatients with diarrheal diseases together with detailed information on patient's ages, clinical symptoms, estimated districts of acquiring infection, and the drug susceptibilities fulfilled on individual cards (mark sheet) and send out by conventional mail. The results are shown on p. 97-101.

Distribution of Information

The collected infectious agent surveillance information is daily updated at IDSC, NIID and electrically published on the Infectious Agents Surveillance website constructing on WWW-WISH, the advanced WISH intra-network, including Forum for Bacteria and that for Virus. Overview of Individual Reports and Outbreak Reports are searchable with link to the disease diagnosed sorted by the bacterial/viral pathogen. At the end of every month, the primary information from the whole country is converted into the monthly-feed-back-data file, which is distributed to the source of information, PHIs and quarantine stations from the download site on WWW-WISH. Such secondary data of the whole country as the breakdown tables are published monthly in *IASR*, which is distributed to cooperating and other institutions concerned. In *IASR*, THE TOPIC OF THIS MONTH, an analysis of infectious agent and patient information, is published in both Japanese and English. This issue contains the articles from January 2005 to December 2005 (see p. 21-45). Since August 1996, the website of IDSC has been opened on the internet. To make the information public, the HTML version of *IASR* is retrievable from the *IASR* URL (http://idsc.nih.go.jp/iasr/). The homepage also includes many updated tables and graphic data on pathogen detection for easy comprehension of the infectious agent trend.

In addition, isolation of influenza viruses is reported to the WHO Influenza Center. The data is uploaded on the website of FluNet (http://www.who.int/flunet) installed by WHO.

Publication of Annual Reports

The infectious agents information is highly valued as a material in Japan and other countries. To keep the precious data, annual reports have been edited. During the four years of 1979-1982, yearly information have been published in *the Annual Report of Laboratory-Confirmed Agents for Infectious Diseases in Japan* (the Research Project for Development of a Surveillance System of Pathogenic Microbes in Japan). Since 1983, it has been published in *Annual Report of the NESID Program* in Japanese and an English version in

REPORTED BY
MONTH OF SPECIMEN COLLECTION

CODE NUMBER	SPECIES, GROUPS, SEROVARS*	TOTAL NUMBER OF ISOLATES FROM HUMAN SOURCES	IMPORTED CASES**
100-001	Verotoxin-producing *Escherichia coli* (EHEC/VTEC)		
100-002	Enterotoxigenic *Escherichia coli* (ETEC)		
100-003	Enteroinvasive *Escherichia coli* (EIEC)		
100-004	Enteropathogenic *Escherichia coli* (EPEC)		
100-005	Other diarrhegenic *Escherichia coli*		
134-001	*Salmonella* Typhi		
134-002	*Salmonella* Paratyphi A		
104	*Salmonella* O4*		
105	*Salmonella* O7*		
106	*Salmonella* O8*		
107	*Salmonella* O9*		
108	*Salmonella* O9, 46 *		
109	*Salmonella* O3, 10 *		
110	*Salmonella* O1, 3,19 *		
111	*Salmonella* O11*		
112	*Salmonella* O13*		
113	*Salmonella* O6,14*		
114	*Salmonella* O16*		
115	*Salmonella* O17*		
116	*Salmonella* O18*		
117	*Salmonella* O21*		
118	*Salmonella* O28*		
119	*Salmonella* O30*		
120	*Salmonella* O35*		
121	*Salmonella* O38*		
122	*Salmonella* O39*		
123	*Salmonella* O40*		
124	*Salmonella* O41*		
125	*Salmonella* O42*		
126	*Salmonella* O43*		
127	*Salmonella* O45*		
128	*Salmonella* O47*		
129	*Salmonella* O48*		
130	*Salmonella* O50*		
131	*Salmonella* O51*		
134-003	*Salmonella* other groups		
134-004	*Salmonella* group unknown		
201-001	*Listeria monocytogenes*		
202-001	*Yersinia enterocolitica*		
202-002	*Yersinia pseudotuberculosis*		
204-001	*Vibrio cholerae* O1: El Tor, Ogawa, CT (+)		
204-002	*Vibrio cholerae* O1: El Tor, Ogawa, CT (-)		
204-003	*Vibrio cholerae* O1: El Tor, Inaba, CT (+)		
204-004	*Vibrio cholerae* O1: El Tor, Inaba, CT (-)		
204-005	*Vibrio cholerae* O1: Classical, Ogawa, CT (+)		
204-006	*Vibrio cholerae* O1: Classical, Ogawa, CT (-)		
204-007	*Vibrio cholerae* O1: Classical, Inaba, CT (+)		
204-008	*Vibrio cholerae* O1: Classical, Inaba, CT (-)		
204-011	*Vibrio cholerae* O1, CT (-)		
204-009	*Vibrio cholerae* O139, CT (+)		
204-010	*Vibrio cholerae* O139, CT (-)		
204-012	*Vibrio cholerae* non-O1 & O139		
204-013	*Vibrio parahaemolyticus*		
204-014	*Vibrio fluvialis*		
204-015	*Vibrio mimicus*		
219-001	*Aeromonas hydrophila*		
219-002	*Aeromonas sobria*		
219-003	*Aeromonas hydrophila/sobria*		
222-001	*Plesiomonas shigelloides*		
223-001	*Campylobacter jejuni*		
223-002	*Campylobacter coli*		
223-003	*Campylobacter jejuni/coli*		
226-001	*Staphylococcus aureus*		
227-001	*Clostridium perfringens*		
227-002	*Clostridium botulinum* E		
227-003	*Clostridium botulinum* non-E		
230-001	*Bacillus cereus*		

** IMPORTED CASES INCLUDED IN THE TOTAL

Fig. 3. Reporting form A for isolation of pathogenic bacteria (prefectural and municipal public health institutes) from human sources.

CODE NUMBER	SPECIES, GROUPS, SEROVARS*	TOTAL NUMBER OF ISOLATES FROM HUMAN SOURCES	IMPORTED CASES**
301-001	*Shigella dysenteriae* 1		
301-002	*Shigella dysenteriae* 2		
301-003	*Shigella dysenteriae* 3		
301-004	*Shigella dysenteriae* 4		
301-005	*Shigella dysenteriae* 5		
301-006	*Shigella dysenteriae* 6		
301-007	*Shigella dysenteriae* 7		
301-008	*Shigella dysenteriae* 8		
301-009	*Shigella dysenteriae* 9		
301-010	*Shigella dysenteriae* 10		
301-011	*Shigella dysenteriae* 11		
301-012	*Shigella dysenteriae* 12		
301-090	*Shigella dysenteriae* other serovars		
301-099	*Shigella dysenteriae* serovar unknown		
302-001	*Shigella flexneri* 1a		
302-002	*Shigella flexneri* 1b		
302-003	*Shigella flexneri* 1		
302-004	*Shigella flexneri* 2a		
302-005	*Shigella flexneri* 2b		
302-006	*Shigella flexneri* 3a		
302-007	*Shigella flexneri* 3b		
302-008	*Shigella flexneri* 4a		
302-009	*Shigella flexneri* 4b		
302-010	*Shigella flexneri* 4		
302-011	*Shigella flexneri* 5a		
302-012	*Shigella flexneri* 5b		
302-013	*Shigella flexneri* 6		
302-014	*Shigella flexneri* var. X		
302-015	*Shigella flexneri* var. Y		
302-090	*Shigella flexneri* other serovars		
302-099	*Shigella flexneri* serovar unknown		
303-001	*Shigella boydii* 1		
303-002	*Shigella boydii* 2		
303-003	*Shigella boydii* 3		
303-004	*Shigella boydii* 4		
303-005	*Shigella boydii* 5		
303-006	*Shigella boydii* 6		
303-007	*Shigella boydii* 7		
303-008	*Shigella boydii* 8		
303-009	*Shigella boydii* 9		
303-010	*Shigella boydii* 10		
303-011	*Shigella boydii* 11		
303-012	*Shigella boydii* 12		
303-013	*Shigella boydii* 13		
303-014	*Shigella boydii* 14		
303-015	*Shigella boydii* 15		
303-016	*Shigella boydii* 16		
303-017	*Shigella boydii* 17		
303-018	*Shigella boydii* 18		
303-090	*Shigella boydii* other serovars		
303-099	*Shigella boydii* serovar unknown		
304-001	*Shigella sonnei*		
304-002	*Shigella* species unknown		
401-001	*Entamoeba histolytica*		
402-001	*Cryptosporidium* spp.		
403-001	*Giardia lamblia*		

** IMPORTED CASES INCLUDED IN THE TOTAL

Fig. 3.-Continued-1.

CODE NUMBER	SPECIES, GROUPS, SEROTYPES*	TOTAL NUMBER OF ISOLATES FROM HUMAN SOURCES	IMPORTED CASES**
501	*Streptococcus* A*		
502-001	*Streptococcus* B		
502-002	*Streptococcus* C		
502-003	*Streptococcus* G		
502-004	*Streptococcus* other groups		
502-005	*Streptococcus* group unknown		
502-006	*Streptococcus pneumoniae*		
508-001	*Corynebacterium diphtheriae*		
509-001	*Bordetella pertussis*		
510-001	*Legionella pneumophia*		
510-002	*Legionella* others		
512-001	*Mycobacterium tuberculosis*		
512-002	*Mycobacterium bovis*		
512-003	*Mycobacterium avium*- intracellulare complex		
515-001	*Haemophilus influenzae* type b		
515-002	*Haemophilus influenzae* other types		
517-001	*Klebsiella pneumoniae*		
518-001	*Neisseria meningitidis*		
518-002	*Neisseria gonorrhoeae*		
520-001	*Leptospira* spp.		
521-001	*Borreria burgdorferi*		
522-001	*Mycoplasma pneumoniae*		
	Total		

** IMPORTED CASES INCLUDED IN THE TOTAL

Fig. 3.-Continued-2.

REPORTED BY
DATE OF REPORTING(YYMMDD)
CATEGORY OF DISEASE ☐BACTERIA ☐PROTOZOA ☐VIRUS ☐RICKETTSIA/CHLAMYDIA

ID No.
INFECTIOUS AGENT*
DATE OF SPECIMEN COLLECTION (YYMMDD)

*TYPING RESULT OF BACTERIA
SEROTYPE/SEROVAR
TOXIN TYPE/PATHOGENICITY
BIOCHEMICAL FEATUER, etc

PATIENT DATA
GENDER AGE IN YEARS AGE IN MONTHS
INSTITUTE OF SPECIMEN COLLECTION CATEGORY OF SENTINEL
DIAGNOSIS SYMPTOMATIC OR ASYMPTOMATIC
DATE OF ONSET (YYMMDD) PROGNOSIS

SOURCE OF SPECIMEN
☐STOOL ☐BIOPSY/AUTOPSY (ORGAN:) ☐NEEDLE BIOPSY (THORACIC FLUID, etc)
☐SPUTUM/TRACHEAL ASPITATES ☐BLOOD ☐SKIN/VESICLE
☐NASOPHARYNGEAL ☐CEREBROSPINAL FLUID ☐GENITAL
☐EYE ☐URINE
☐VOMIT ☐OTHER ( )

CLINICAL CONDITION/FEATURE OTHER THAN EHEC POSITIVE CASE
☐NO DATA ☐HEADACHE ☐SHOCK (← LOW BLOOD PRESSURE, CIRCULATORY DISTURBANCE)
☐HEALTHY/NO ILLNESS ☐GASTRO-INTESTINAL DISEASE (☐DIARRHEA ☐VOMITING)
☐FEVER (℃) ☐BLOODY DIARRHEA ☐ABDOMINAL PAIN
☐FEBRILE CONVULSION ☐KERATITIS ☐CONJUNCTIVITIS ☐KERATOCONJUNCTIVITIS
☐DISEASE OF MUSCLES & JOINTS (←ARTHRITIS) ☐MENINGITIS ☐ALTERED CONSCIOUSNESS
☐STOMATITIS ☐PARALYSIS
☐UPPER RESPIRATORY TRACT INFECTION ☐ENCEPHALITIS ☐ENCEPHALOPATHY
☐LOWER RESP. TRACT INFECTION (☐PNEUMONIA ☐BRONCHITIS) ☐MYELITIS
☐VESICLE ☐CARDIOVASCULAR DISORDER
☐ERUPTION ☐JAUNDICE
☐HEMORRHAGIC PREDISPOSITION ☐HEPATIC DISORDER
☐ENLARGED LYMPH NODES ☐HUS
☐SALIVARY GLANDULAR DISEASE ☐RENAL DISORDER
☐OTHER ( ) ☐GENITOURINARY DISEASE

METHOD OF ISOLATION/DETECTION
☐CULTURE ☐CELL SENSITIVE CELLS ☐MEDIUM ☐CHICK EMBRYO (PASSAGE) (PASSAGE) ☐ANIMAL SENSITIVE CELLS ☐OTHER (PASSAGE)
☐ANTIGEN DETECTION ☐FA ☐EIA ☐RPHA ☐LA ☐PA ☐IC ☐OTHER
☐GENE DETECTION NON-AMPLIFIED AMPLIFIED ☐HYBRIDIZATION ☐PAGE ☐OTHER ☐PCR ☐PCR+HYBRIDIZATION ☐PCR+SEQUENCING ☐OTHER
☐ELECTRON MICROSCOPY ☐MICROSCOPY
☐OTHER ( )

EPIDEMIOLOGICAL INFORMATION
☐SPORADIC ☐EPIDEMIC ☐FAMILIAL OUTBREAK ☐OUTBREAK (PLACE)
OVERSEAS TRAVEL ☐NO (PLACE OF RESIDENCE)
☐YES COUNTRY/AREA COUNTRY/AREA
COUNTRY/AREA COUNTRY/AREA
TRAVEL PERIOD FROM(YYMMDD) TO (YYMMDD)
VACCINATION HISTORY VACCINE
DATE OF VACCINATION (YYMMDD)

REMARKS

RECORD No.

Fig. 4. Reporting form B for individual case of pathogen isolation/detection from human sources.

REPORTED BY
DATE OF REPORTING(YYMMDD)
CATEGORY OF DISEASE
BACTERIA OR VIRUS

SUSPECTED ROUTE OF INFECTION
DIAGNOSIS
ID No.
PLACE OF INCIDENT OCCURRED ☐JAPAN (PREFECTURE/CITY) ☐OVERSEAS (COUNTRY/AREA)
PERIOD FROM (YYMMDD) TO (YYMMDD)
SUSPECTED PLACE OF PREPARING FOOD
SUSPECTED PLACE OF INFECTION/EATING FOOD
INCRIMINATED FOOD CATEGORY
NAME
SUSPECTED CAUSE
NUMBER OF CONSUMERS
NUMBER OF PATIENTS
PATIENT'S AGE FROM
TO
NUMBER OF EXAMINED
NUMBER OF POSITIVE CASE
INCUBATION PERIOD hrs.
SECONDARY INFECTION YES or No

BACTERIA/PROTOZOA ISOLATED FROM HUMAN
INFECTIOUS AGENT
SEROTYPE/SEROVAR
TOXIN TYPE/PATHOGENICITY
BIOCHEMICAL FEATURE, etc

BACTERIA/PROTOZOA ISOLATED FROM FOOD, DRINKING WATER
SPECIMEN
INFECTIOUS AGENT
SEROTYPE/SEROVAR
TOXIN TYPE/PATHOGENICITY
BIOCHEMICAL FEATURE, etc

BACTERIA/PROTOZOA ISOLATED FROM KITCHEN, COOKWARE, FOOD HANDLERS
SPECIMEN
INFECTIOUS AGENT
SEROTYPE/SEROVAR
TOXIN TYPE/PATHOGENICITY
BIOCHEMICAL FEATURE, etc

VIRUS ISOLATED/DETECTED FROM HUMAN ☐POSITIVE ☐NEGATIVE
INFECTIOUS AGENT
METHOD OF ISOLATION/DETECTION
☐CELL ☐MEDIUM ☐CHICK EMBRYO (PASSAGE) ☐ANIMAL ☐OTHER
SENSITIVE CELLS (PASSAGE) SENSITIVE CELLS (PASSAGE)
☐ANTIGEN DETECTION ☐FA ☐EIA ☐RPHA ☐LA ☐PA ☐IC ☐OTHER
☐GENE DETECTION NON-AMPLIFIED ☐HYBRIDIZATION ☐PAGE ☐OTHER
AMPLIFIED ☐PCR ☐PCR+HYBRIDIZATION ☐PCR+SEQUENCING ☐OTHER
☐ELECTRON MICROSCOPY ☐MICROSCOPY
☐OTHER ( )

VIRUS ISOLATED/DETECTED FROM FOOD, DRINKING WATER
SPECIMEN
INFECTIOUS AGENT
METHOD OF ISOLATION/DETECTION
☐CELL ☐MEDIUM ☐CHICK EMBRYO (PASSAGE) ☐ANIMAL ☐OTHER
SENSITIVE CELLS (PASSAGE) SENSITIVE CELLS (PASSAGE)
☐ANTIGEN DETECTION ☐FA ☐EIA ☐RPHA ☐LA ☐PA ☐IC ☐OTHER
☐GENE DETECTION NON-AMPLIFIED ☐HYBRIDIZATION ☐PAGE ☐OTHER
AMPLIFIED ☐PCR ☐PCR+HYBRIDIZATION ☐PCR+SEQUENCING ☐OTHER
☐ELECTRON MICROSCOPY ☐MICROSCOPY
☐OTHER ( )

REMARKS

RECORD No.

Fig. 5. Reporting form C for outbreak.

REPORTED BY | DATE OF REPORTING(YYMMDD)

BACTERIA OR VIRUS

ID No. | DATE OF SPECIMEN COLLECTION (YYMMDD)

SPECIMEN

DOMESTIC or IMPORETED

NUMBER OF SPECIMEN | NUMBER OF POSITIVE SPECIMEN

ISOLATED BACTERIA/PROTOZOA

SEROTYPE/SEROVAR

TOXIN TYPE/PATHOGENICITY

BIOCHEMICAL FEATURE, etc

ISOLATED/DETECTED VIRUS

METHOD OF ISOLATION/DETECTION

☐CELL ☐MEDIUM ☐CHICK EMBRYO (PASSAGE) ☐ANIMAL ☐OTHER

SENSITIVE CELLS (PASSAGE) SENSITIVE CELLS (PASSAGE)

☐ANTIGEN DETECTION ☐FA ☐EIA ☐RPHA ☐LA ☐PA ☐IC ☐OTHER

☐GENE DETECTION NON-AMPLIFIED ☐HYBRIDIZATION ☐PAGE ☐OTHER

AMPLIFIED ☐PCR ☐PCR+HYBRIDIZATION ☐PCR+SEQUENCING ☐OTHER

☐ELECTRON MICROSCOPY ☐MICROSCOPY

☐OTHER ( )

REMARKS

RECORD No.

Fig. 6. Reporting form D for pathogen isolation/detection from food, environment and animal.

this supplement of *Japanese Journal of Infectious Diseases* (formerly *Japanese Journal of Medical Science and Biology*). This is the eighth annual report of infectious agent surveillance based upon the data collected through the on-line system.

2. Notes on the use of the infectious agent information

The information given in this report is a summary of the infectious agents isolated/detected by etiological diagnosis or pathogen surveillance conducted for a public health purpose.

In analyzing and citing the information of the infectious agents published in this report, the following should be considered.

The report includes exclusively the positive results.

The information system collects exclusively the positive results of pathogen isolation/detection, without recording the number of specimens, having failed to yield any pathogen. The number of positive results may or may not reflect that of all the examinations. This must be taken into consideration, particularly when comparison is made by district.

The results may not necessarily be correlated to the diseases or clinical symptoms.

As a common problem in laboratory diagnosis, the infectious agent can not always be identified as the direct cause of the disease or the clinical symptoms.

When a pathogen is isolated/detected from specimens of lesions, such as cerebrospinal fluid, blood, vesicles, biopsy, and autopsy, it must be correlated to the disease. However, when stool, pharyngeal swabs, or urine is examined, a pathogen is isolated from a case of latent or inapparent infection or the one transiently present might be isolated or detected*. Therefore, the correlation between the isolated/detected pathogen and the illness or clinical symptoms must be considered individually after checking up with epidemic conditions, specimens, examination methods and the results of other examinations

*Since 1997, the results of detection by PCR can be reported. However, the above problems in PCR have not been solved, the viruses detected only by PCR are separately shown on the tables (see p. 121-133).

Isolation/detection from the same person may sometimes be reported from more than two sources.

Of the reports of examinations provided by PHI or quarantine station, particularly those concerned with legally designated notifiable infectious diseases (cholera and shigellosis, etc.), those of the pathogenic agent isolated/detected from the same case may be duplicated. There is no process for elimination of such duplication. It is improper, therefore, to total the reported numbers from PHIs and those from quarantine stations, if there is such duplication.

The numbers of isolated/detected pathogens reported in previous Annual Reports have been updated.

The previous data files, if there are new reports or corrections, are updated on a case basis at IDSC, NIID. The annual data for 1999-2003 on p. 54-55, 91-92, 100-101, 118-119 and 132-133 in this report may not necessarily coincide with the figures in the previously published annual reports. Such disagreement is rare in the reports of bacterial pathogens, whereas may be seen almost every year in viral isolation/detection. Nevertheless, the difference is not so large as to influence the overall trend.

The numbers of reports of isolation/detection in this report were based on the laboratory data submitted to IDSC, NIID before October 2, 2007.

3. The National Epidemiological Surveillance of Infectious Diseases in compliance with the enforcement of the Infectious Diseases Control Law

The NESID in Japan started in 1981 consists of 1) sentinel surveillance for occurrence of patients of 27 kinds of infectious diseases other than legally notifiable diseases, and 2) infectious agents surveillance. The surveillance, however, has not been based upon any legal basis.

In April 1999, the Communicable Disease Prevention Law in effect since 1897, the Venereal Disease Prevention Law since 1948, and the AIDS Prevention Law since 1989 have been abrogated and the Infectious Diseases Control Law is being enacted. In this new law, the NESID program is defined as one of the main objects. Intensifying the surveillance system based on notification from physicians, collection, comprehension and analysis of the incidence and the trend of infectious diseases, and feedback of such information are proposed; moreover active surveillance has been introduced for epidemiological investigations. Since the information of infectious agents is essential for providing adequate medical care to patients and important to prevent and control the spread of infectious diseases, it is necessary to collect, analyze, and publish the information on infectious agents. It is required that these information published benefit the general public as well as those working in medical fields.

The purpose of the new NESID program is settled in compliance with the Infectious Diseases Control Law to promote effective and accurate infectious disease control measures by reinforcing and expanding the conventional surveillance system, restructuring the computer-network system to obtain, analyze, and quickly publish the information on a nation-wide scale and conducting active surveillance. Government and local governments (prefectures and cities including special wards having health centers) are responsible for conducting the surveillance.

Target diseases: In the Infectious Diseases Control Law, all infectious diseases of Category I-V are designated as the targets of the NESID (see p. 19 Table 1).

Organization of the surveillance system: As the organization to play a central role in the national surveillance, the national infectious disease surveillance center has been organized. IDSC, NIID fulfills the function. A district infectious disease surveillance center has been organized by each local government, and it is placed mainly in the PHI to conduct the surveillance within the district. In each prefecture, one of district infectious disease surveillance centers is assigned for the key district infectious disease surveillance center, which collects and analyzes the information from the whole area of the prefecture and forwards the results to the rest of district infectious disease surveillance centers. With participation of experts on infectious diseases in different fields, a national committee of infectious disease surveillance is organized in MHLW and a district committee of infectious disease surveillance in the local government.

Surveillance for Category I-IV infectious diseases:

Physicians diagnosing target infectious diseases: The physician who has diagnosed any of the target infectious diseases must report immediately the name, age and sex of the patients and other information on the reporting form to the nearby HC. When HC requires tests for the etiological agent, the physician will send the available specimens and/or the information on the infectious agent to the PHI.

HCs: HC must immediately forward the patient information to the health department of the local government (local health department) and the district infectious disease surveillance center via computer-network system. When necessary, the HC will ask the physician to send the specimens and/or information on the etiology of the infection to PHI.

HC must also distribute the information on the incidence of target diseases and their infectious agents obtained from the district infectious disease surveillance center to the municipalities, the medical institutions concerned, the Medical Association, the Board of Education, etc. through weekly and monthly reports or other media.

HC receiving any notification on Category I-IV infectious diseases must inform the incident (except for the information on the patient's privacy) to the above-described organizations.

PHIs: PHI conducts the laboratory tests requested and sends the results to the physician through HC. The information on the infectious agents sent by the physician and the results of the laboratory tests must be sent to HC, the local health department, and the district infectious disease surveillance center.

Any tests difficult to conduct at PHI are transferred to the NIID.

NIID: The NIID conducts the laboratory test requested and reports the results to the PHI and the national infectious disease surveillance center.

Local health departments: Upon receiving the patient information from HC by electronic telecommunication, the local health department must send the information to the national infectious disease surveillance center through the computer-network system. The information on the infectious agents including the results of the tests sent from the PHI should also be reported immediately to the national infectious disease surveillance center.

District (key district) infectious disease surveillance centers: The district infectious disease surveillance center should collect and analyze the information on incidence of target diseases and their infectious agents (including that on the results of the tests conducted by PHI) and convey the information to HCs and other institutions concerned through weekly report or other media together with the published information on the whole country obtained from the national infectious disease surveillance center. The key district infectious disease surveillance center must furnish the information in the prefecture to the district infectious disease surveillance centers and other organizations together with the information on the whole country.

National infectious disease surveillance center: The national infectious disease surveillance center must immediately compile, analyze and evaluate the patient information received from the local health departments and send the information on incidence of target diseases in the whole country to the local health departments through weekly report or other media together with that of Category V infectious diseases. The information on infectious agents are analyzed and evaluated, and the results are to be sent immediately to the local health departments and, if necessary, published in weekly report or other media.

Surveillance for Category V infectious diseases (required notifying all the cases):

Physicians diagnosing target infectious diseases: The physician who has diagnosed any of the target infectious diseases must report within 7 days the age and sex of the patient and other information on the reporting form to the nearby HC. Infectious agent surveillance will be conducted by request from the health center in the same way as for the infectious diseases in Category I-IV.

HCs: HC must forward as soon as possible, at the latest within 7 days the information to the local health department and the district infectious disease surveillance center through the computer-network system. Concerning the target diseases for infectious agent surveillance among Category V infectious diseases marked with * in the Table 1 on p. 19, the health center will ask the physician to send specimens for the microbiological tests and/or the information on the infectious agent to PHI, if necessary.

HC must also regularly distribute in the same way as for the Category I-IV infectious diseases information on incidence of target diseases and their infectious agents retrieved from the district infectious disease surveillance center.

PHIs: Similar to the Category I-IV infectious diseases.

NIID: Similar to the Category I-IV infectious diseases.

Local health departments: Within 7 days after HC has received information, the local health department must send it to the national infectious disease surveillance center through the computer-network system. The information on the infectious agents sent from PHI should also be transmitted immediately to the national infectious disease surveillance center.

District (key district) infectious disease surveillance centers: Similar to the Category I-IV infectious diseases.

National infectious disease surveillance center: The national infectious disease surveillance center must immediately compile, analyze and evaluate the patient information sent from the local health departments and send the information on incidence of target diseases in the whole country to the local health departments through weekly reports or other media together with that on Category I-IV infectious diseases and Category V infectious diseases to be reported by the sentinel clinics and hospitals. The information on infectious agents is treated in the same way as for that on the Category I-IV infectious diseases.

Surveillance for Category V infectious diseases (required to be reported by the sentinel clinics and hospitals):

Sentinels: The number of sentinel clinics and hospitals is decided depending on the relative population of the jurisdiction of each HC and on consideration enabling comprehending the incidents in the whole area of the prefecture. The sentinel clinics comprise those for pediatric diseases (about 3,000 pediatrics in the whole country), those for influenza (3,000 pediatrics as mentioned above plus about 2,000 internal medicine), those for eye diseases (about 600 ophthalmology in the whole country), those for sexually transmitted diseases (about 900 STD clinics including gynecology, obstetrics, urology, and dermatology in the whole country). The sentinel hospitals primarily target inpatients (about 500 hospitals having more than 300 beds providing medical care in pediatrics and internal medicine in the whole country).

About 10% of sentinel clinics for pediatric diseases, influ-

enza, eye diseases and all the sentinel hospitals serve as sentinels for infectious agent surveillance. The target diseases for infectious agent surveillance are shown with a mark * in the Table 1 on p. 19.

Incidence of the pediatric diseases, influenza and eye diseases found at sentinels are reported every week to health centers. Those of the target diseases at sentinel hospitals except for drug-resistant bacterial infections are also reported every week. Those of STD at sentinel clinics and drug-resistant bacterial infections at sentinel hospitals are reported every month to health centers. Specimens for etiological tests are sent from sentinels for infectious agent surveillance to PHI.

HCs: HC must send the information on incidence of infectious diseases obtained from sentinels to the local health department and the district infectious disease surveillance center via computer-network system (weekly reports are sent by Tuesday of the next week and monthly reports by the 3rd of the next month).

HC must also feed back the information on incidence of target diseases and their infectious agents obtained from the district infectious disease surveillance center in the same way as for Category I-IV infectious diseases.

PHIs: Similar to the Category I-IV infectious diseases.

NIID: Similar to the Category I-IV infectious diseases.

Local health departments: As soon as the information is received from HC, the local health department must forward it to the national infectious disease surveillance center through the computer-network system. The information on the infectious agents received from PHI should also be reported immediately to the national infectious disease surveillance center.

District (key district) infectious disease surveillance centers: Similar to the Category I-IV infectious diseases.

National infectious disease surveillance center: The national infectious disease surveillance center must immediately compile, analyze and evaluate the patient information received from the local health departments and send the information on incidence of target diseases in the whole country to the local health departments by weekly report or other media together with that on the Category I-IV infectious diseases and the Category V infectious diseases required to comprehend all the cases. The information on infectious agents is treated in the same way as that for the Category I-IV infectious diseases.

Active surveillance: Active surveillance for epidemiological investigation is introduced so that the governor of the local government can operate when any of the Category I-IV infectious diseases occurs or the incidence of Category V infectious diseases show an unusually different trend. Understanding and cooperation with close connection of people concerned may be necessary for operation of active surveillance. The Field Epidemiology Training Program to educate experts participating in active surveillance is being held at the NIID from the fiscal year of 1999.

For adequate treatment, prevention and control of infectious diseases on personal and district levels to the national level, high quality surveillance accurately comprehending the trend of the diseases and the infectious agents is essential. To realize this purpose, the understanding and cooperation of people in many different fields is required in operating the NESID program.

Table 1. Target diseases of the Infectious Diseases Control Law, Japan (Nov. 5, 2003-)

(Reportable infectious diseases of categories I-V under the National Epidemiological Surveillance of Infectious Diseases)

Category I (to be notified all the cases promptly after diagnosis)
Crimean-Congo hemorrhagic fever*, Ebola hemorrhagic fever*, Lassa fever*, Marburg disease*, Plague*, Severe Acute Respiratory Syndrome (SARS)*, Smallpox*

Category II (to be notified all the cases promptly after diagnosis)
Acute poliomyelitis*, Cholera*, Diphtheria*, Paratyphoid fever*, Shigellosis*, Typhoid fever*

Category III (to be notified all the cases promptly after diagnosis)
Enterohemorrhagic *Escherichia coli* infection*

New category IV (to be notified all the cases promptly after diagnosis)
Anthrax*, Avian influenza virus infection*, Botulism*, Brucellosis*, Coccidioidomycosis*, Dengue fever*, Echinococcosis*, Epidemic typhus*, Hantavirus pulmonary syndrome*, Hemorrhagic fever with renal syndrome*, Hepatitis A, Hepatitis E*, Herpes B virus infection*, Japanese encephalitis*, Japanese spotted fever*, Legionellosis*, Leptospirosis*, Lyme disease*, Lyssavirus infection (excluding rabies)*, Malaria, Monkeypox*, Nipah virus infection*, Psittacosis*, Q fever*, Rabies*, Relapsing fever*, Scrub typhus (Tsutsugamushi disease)*, Tularemia*, West Nile fever (including West Nile encephalitis)*, Yellow fever*

New category V

a. Diseases to be notified all the cases by all physicians within 7 days after diagnosis
Acquired immunodeficiency syndrome*, Amebiasis*, Acute encephalitis (excluding Japanese encephalitis and West Nile encephalitis)*, Congenital rubella syndrome*, Creutzfeldt-Jakob disease*, Cryptosporidiosis, Giardiasis, Severe invasive streptococcal infections (Streptococcal toxic shock-like syndrome)*, Syphilis, Meningococcal meningitis*, Tetanus*, Vancomycin-resistant *Enterococcus* infection*, Vancomycin-resistant *Staphylococcus aureus* infection*, Viral hepatitis (excluding hepatitis A and E)*,

b. Diseases to be reported by the sentinel clinics and hospitals
<Influenza sentinel> (weekly report)
Influenza (excluding avian influenza virus infection)*

<Pediatric disease sentinel> (weekly report)
Chickenpox, Erythema infectiosum, Exanthem subitum, Group A streptococcal pharyngitis*, Hand, foot and mouth disease*, Herpangina*, Infectious gastroenteritis*, Measles (excluding adult)*, Mumps*, Pertussis*, Pharyngoconjunctival fever*, Respiratory syncytial virus infection*, Rubella,

<Eye disease sentinel> (weekly report)
Acute hemorrhagic conjunctivitis*, Epidemic keratoconjunctivitis*

<Sexually transmitted disease (STD) sentinel> (monthly report)
Condyloma acuminatum, Genital chlamydial infection, Genital herpes, Gonorrhea

<Target diseases at sentinel hospital>
(weekly report)
Aseptic meningitis*, Bacterial meningitis*, Chlamydial pneumonia (excluding psittacosis), Measles in adults*, Mycoplasmal pneumonia

(monthly report)
Methicillin-resistant *Staphylococcus aureus* infection, Multi-drug-resistant *Pseudomonas aeruginosa* infection, Penicillin-resistant *Streptococcus pneumoniae* infection

*Target disease of infectious agent surveillance
An underline shows the disease added or changed in this revision.