DISWEB in Korea

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NIH, Korea

1. Background

Socio-demographic features

- Geographic features

Socio-demographic features

- Demographic characteristics in 1999
  - Total Population : 46 million
  - Under the age of 15 years : 10 million
  - Life expectancy Male 71 / Female 78
  - 78% living in Urban areas
- GDP : 457billion US dollars
  - (13^{th} in the world)

Socio-demographic features

- Geographic features

Health care system (1)

- Numbers of Physicians
  - 65,431(1.2 per 1,000 population)
- Numbers of medical institutions
  - clinics : 18,507, hospital : 796
- Private health sectors dominant (>90%)
- Health Insurance
  - Whole population are under coverage,
  - low-income population are under medicaid (5%)

Health care system (2)

- Infectious Disease Control System-

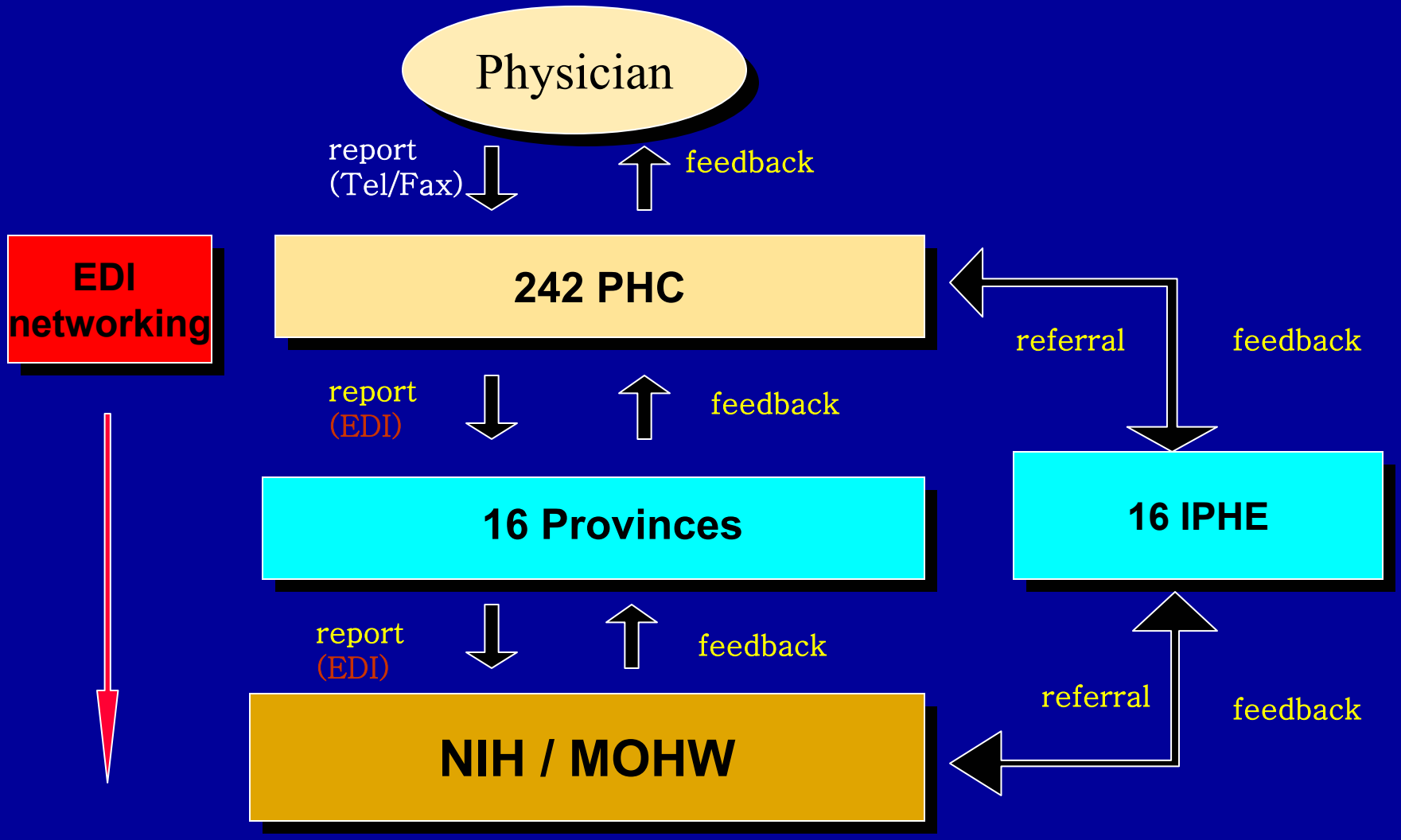
- Central governmental level
  - Ministry of Health & Welfare (MOHW)
  - National Institute of Health (NIH)
    - Responsible for communicable diseases control and surveillance
- Provincial level (16)
  - Institute of Public Health and Environment (IPHE)
- City, County level (242)
  - Public Health Center (PHC)

2. Surveillance system

History

- Enactment of “Comm Dis Control Law”
  - Passive notification-based system : 1954
  - 29 diseases
  - Monthly dissemination (CDMR) : 1990
- Revise “Comm Dis Control Law” : 2000
  - + sentinel medical institution-based system
  - Network-based DISWEB launching : 2000
  - Weekly on-line dissemination : 2002

Communicable Disease Reporting System



Passive Surveillance Diseases

Medical Institution ➔ PHC ➔ Province ➔ NIH

1st Class (6)	**cholera, typhoid fever, shigellosis**
2nd Class (9)	**measles, mumps, rubella, polio, hepatitis-B, Japanese encephalitis**
3rd class (18)	**malaria, TB, STI, tsutsugamushi, leptospirosis, HFRS, anthrax, rabies, influenza, AIDS**
4th class (13)	**yellow fever, dengue, marbug fever, lassa fever, ebola fever**

Sentinel Surveillance Diseases

A. Sentinel Medical Institution ➔ PHC ➔ Province ➔ NIH

Viral hepatitis

Influenza

STDs

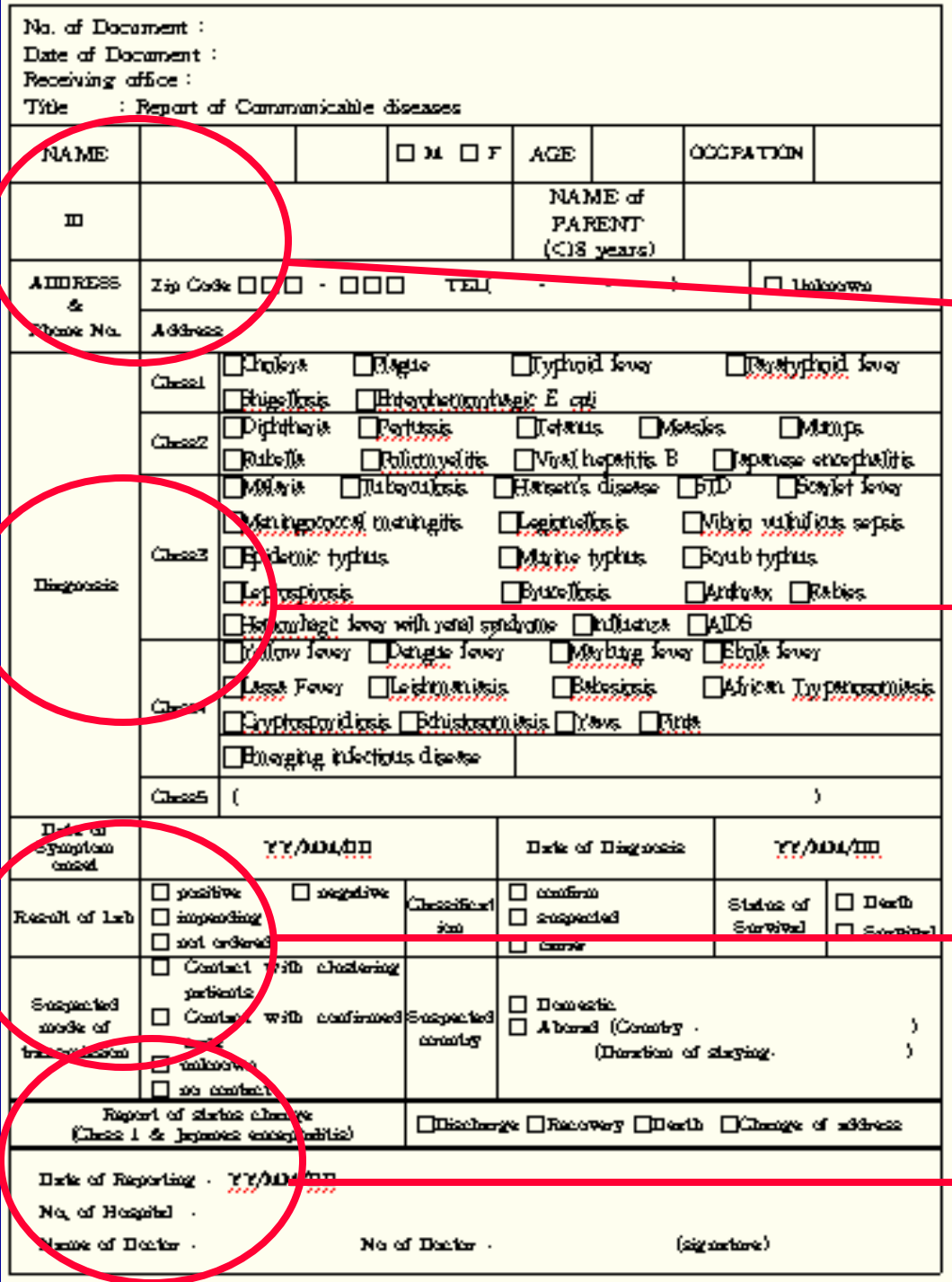
syphilis, gonnorrhea, chlamydia, non-gonococcal urethriti

B. Sentinel Surveillance Institution ➔ NIH

Foreign epidemic diseases

Chagas disease, Angiostrongyliasis, Gnathostomiasis, Filariasis, Hydatidosis, CJD

VRSA



No. of Document :
Date of Document :
Receiving office :
Title : Report of Communicable diseases

NAME			☐ M ☐ F	AGE		OCCPATION	
ID				NAME of PARENT (<18 years)			
ADDRESS & Phone No.	Zip Code ☐☐☐ - ☐☐☐ TEL(- -)						☐ Unknown
	Address						
Diagnosis	Class1	☐Cholera ☐Plague ☐Typhoid fever ☐Paratyphoid fever ☐Shigellosis ☐Enterohemorrhagic E. coli					
	Class2	☐Diphtheria ☐Pertussis ☐Tetanus ☐Measles ☐Mumps ☐Rubella ☐Poliomyelitis ☐Viral hepatitis B ☐Japanese encephalitis					
	Class3	☐Malaria ☐Tuberculosis ☐Hansen's disease ☐STD ☐Scarlet fever ☐Meningococcal meningitis ☐Legionellosis ☐Vibrio vulnificus sepsis ☐Epidemic typhus ☐Murine typhus ☐Scrub typhus ☐Leptospirosis ☐Brucellosis ☐Anthrax ☐Rabies ☐Hemorrhagic fever with renal syndrome ☐Influenza ☐AIDS					
	Class4	☐Yellow fever ☐Dengue fever ☐Marburg fever ☐Ebola fever ☐Lassa Fever ☐Leishmaniasis ☐Babesiosis ☐African Trypanosomiasis ☐Cryptosporidiosis ☐Schistosomiasis ☐Yaws ☐Pinta					
		☐Emerging infectious disease					
	Class5	( )					
Date of Symptom onset	YY/MM/DD			Date of Diagnosis	YY/MM/DD		
Result of Lab	☐ positive ☐ negative ☐ impending ☐ not ordered		Classification	☐ confirm ☐ suspected ☐ Carrier		Status of Survival	☐ Death ☐ Survival
Suspected mode of transmission	☐ Contact with clustering patients ☐ Contact with confirmed ☐ unknown ☐ no contact		Suspected country	☐ Domestic ☐ Abroad (Country .) (Duration of staying .)			
Report of status change (Class 1 & Japanese encephalitis)	☐Discharge ☐Recovery ☐Death ☐Change of address						

Date of Reporting : YY/MM/DD
No. of Hospital :
Name of Doctor : No of Doctor : (signature)

From physicians

: use a report form in folded and posted letter, Fax, Tel etc

Case Information

Type of Disease

Epi information
- transmission mode
- place of infection

Information of reporter

CDMR

(Communicable Diseases Monthly Report)

- Established in 1990 to undertake national surveillance system and epi. Information
  - 6,000 institutions
- Contents
  - Special article
  - Surveillance data
  - Disease outbreak information
- CDWR (on-line weekly dissemination)

CDMR

- Real view
  - http://dis.mohw.go.kr/
  - ✳ **English version is being prepared**

Communicable Disease Information System - Microsoft Internet Explorer

파일(F) 편집(E) 보기(V) 즐겨찾기(A) 도구(T) 도움말(H)

뒤로 앞으로 중지 새로고침 홈 검색 즐겨찾기 목록보기 메일 인쇄 편집 토론

주소(D) http://dis.mohw.go.kr/

연결 신문모음 일정표 전자결재 주요의료뉴스 Daum 교통 복지부 심파일 CNN 연대병원 의학회 병협 KAL 의협

DisWeb 전염병정보망

>Home 1194481 visitor

메일링서비스 의견조사 질병검색 스크린세이버 Ticker

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- 주요전염병감시체계
- 전염병관리정보
- 전염병역학조사
- 예방접종등록사업
- 전염병 일반상식
- 자료실
- 관련사이트

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전염병 발생정보
- 법정전염병 발생현황
- 공지사항
- 게시판

주요전염병감시체계
- 표본감시보고
- 실험실감시보고
- 병원감염감시보고
- 양호교사모니터

전염병관리정보
- 보도자료
- 방역과 소식(지시,전달)
  - 급성전염병관리
  - 결핵관리
  - 에이즈& 성병관리
  - 한센병관리
  - 예방접종관리
- 역학조사과 소식
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- 관련법규
- 관리지침
- 문헌정보검색
- CDMR

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인터넷 영역

시작 받은 ... MyTi... APE... 강의... Co... 2%E... APE... 방역... 오후 2:08

CDMR

- Real view
  - http://www.nih.go.kr/htm/CDMR/frm_main.htm
    - **English version is being prepared**

감염병발생정보지 - Microsoft Internet Explorer

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CDMR-KNIH

Communicable Disease Monthly Report

2001년
2000년
1999년
1998년
1997년
1996년
1995년
1994년
1993년
1992년
1991년
1990년

감염병발생정보는 감염병발생에 대한 감시와 역학적 정보의 제공을 위하여 1990년 창간 되었습니다

CDMR was established in 1990 to undertake national surveillance of communicable diseases and to provide epidemiological information.

National Institute of Health – KOREA
Communicable Disease Monthly Report
Last updated: Jul. 15, 2000

※개정된 국립보건원직제와 연락처입니다.

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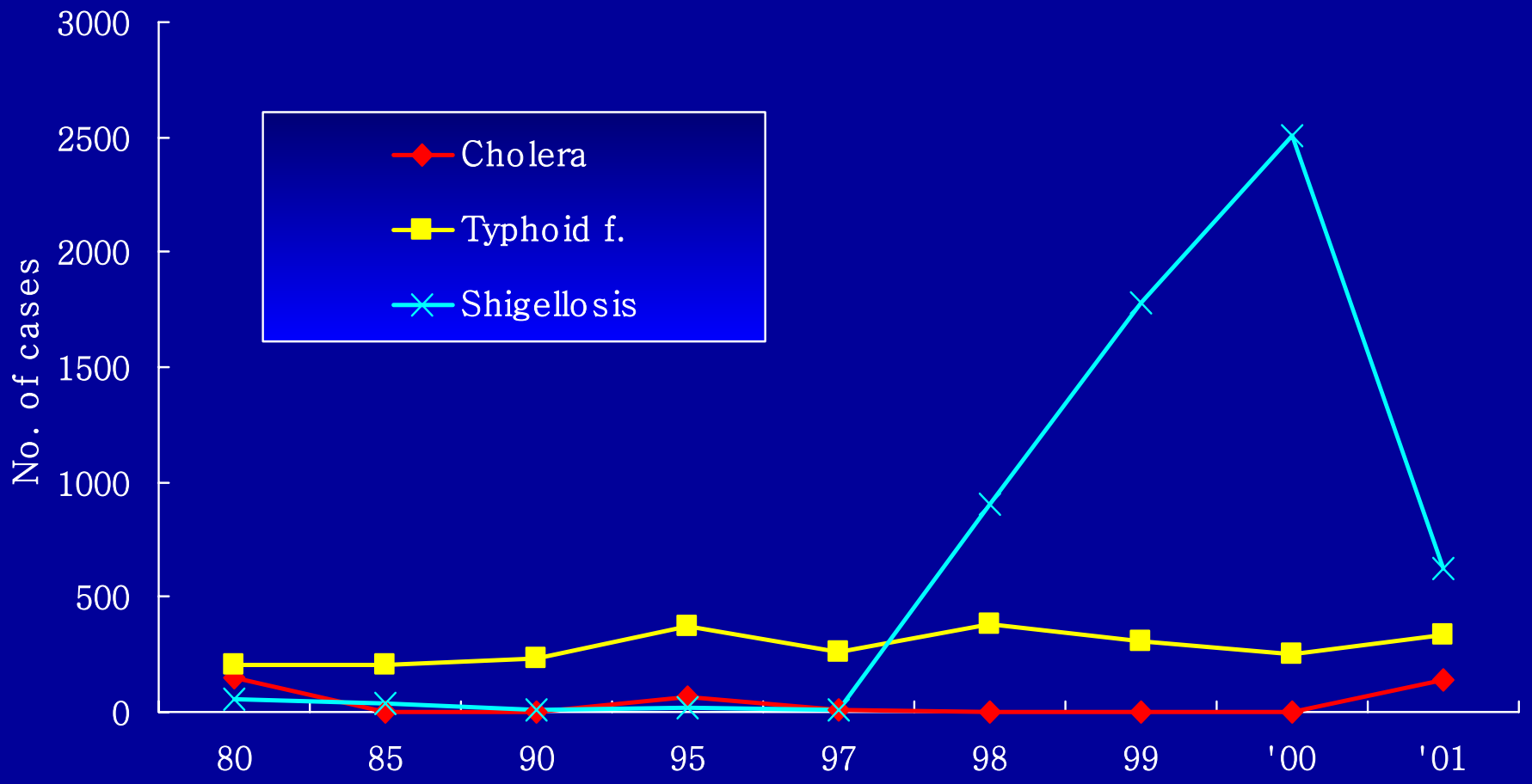
국립보건원 역학조사과 감염정보실
E-mail : knihcdmr@nih.go.kr

인터넷 영역

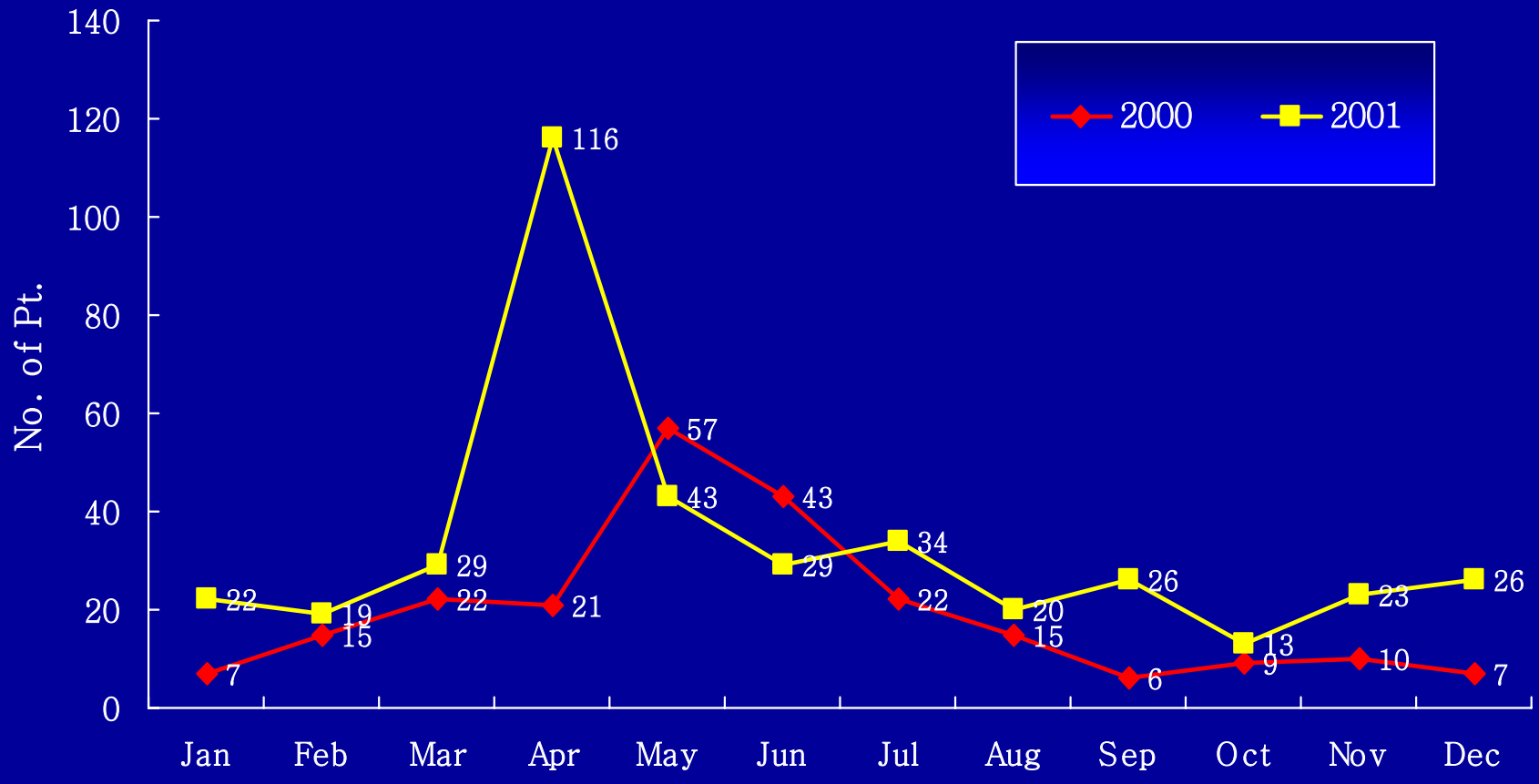
시작 받은 ... MyTi... APEC... 강의원고 Com... 2%EC... APEC... 방역과... 감염... 오후 2:03

3. Surveillance data

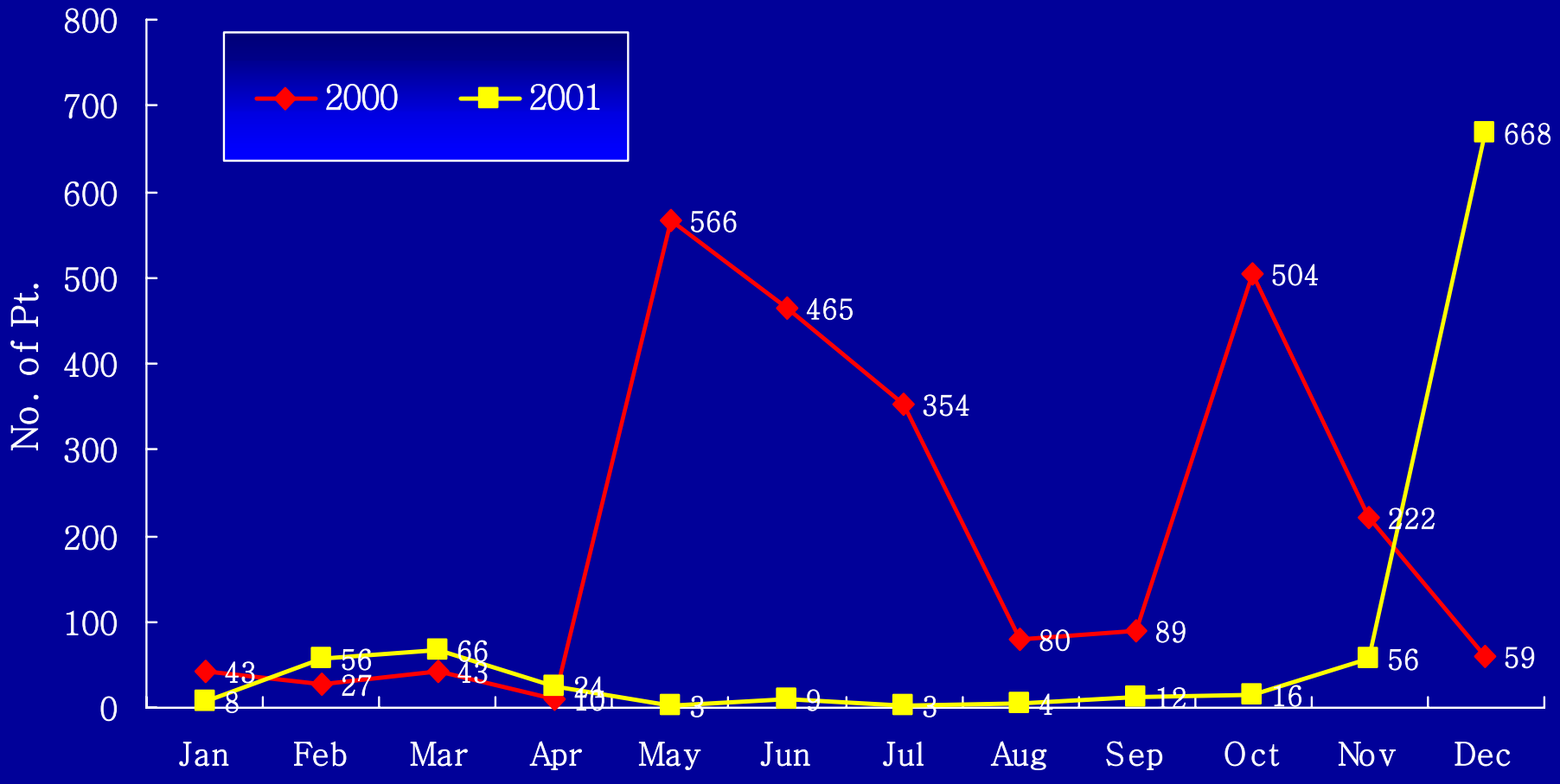
Water-borne Diseases



Typhoid fever



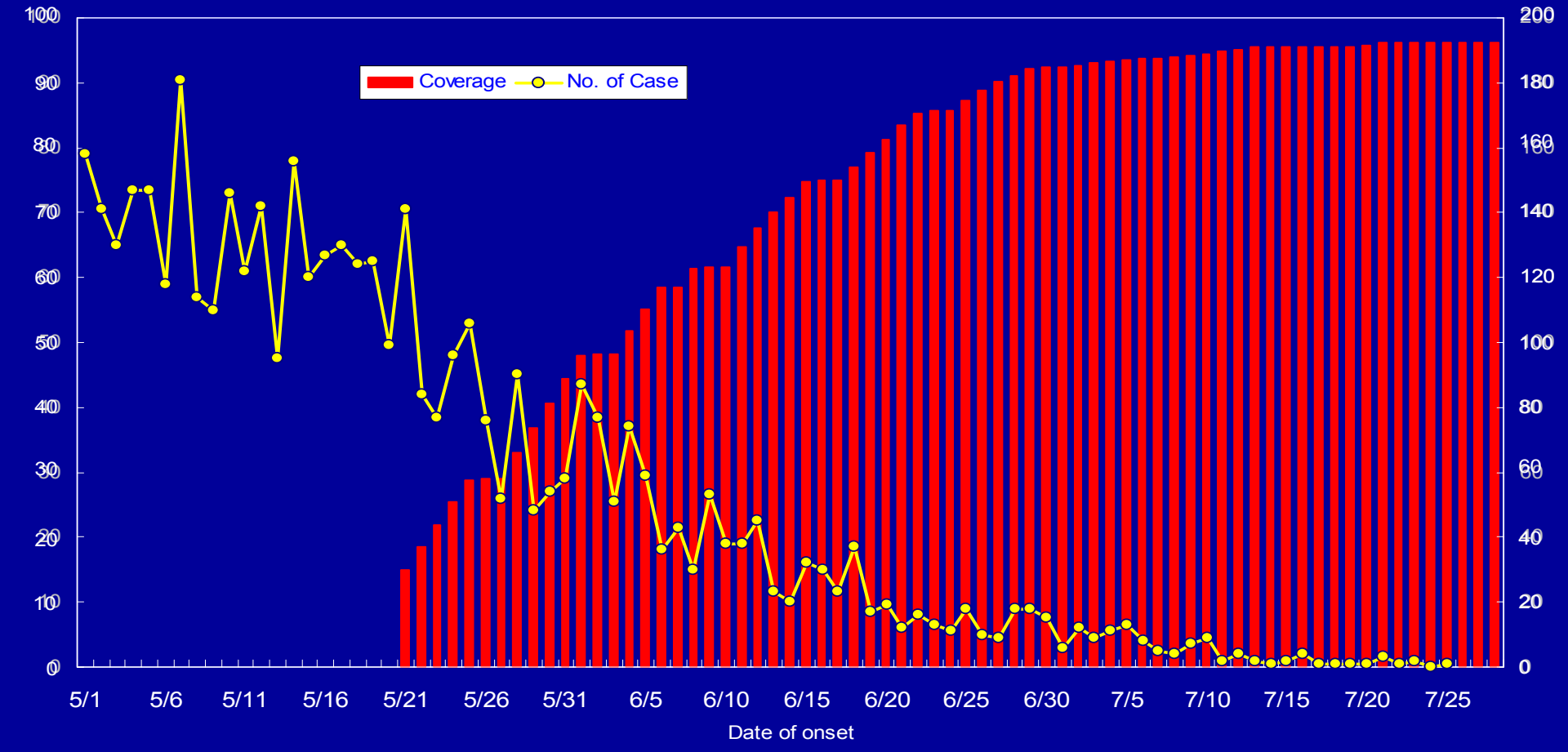
Shigellosis



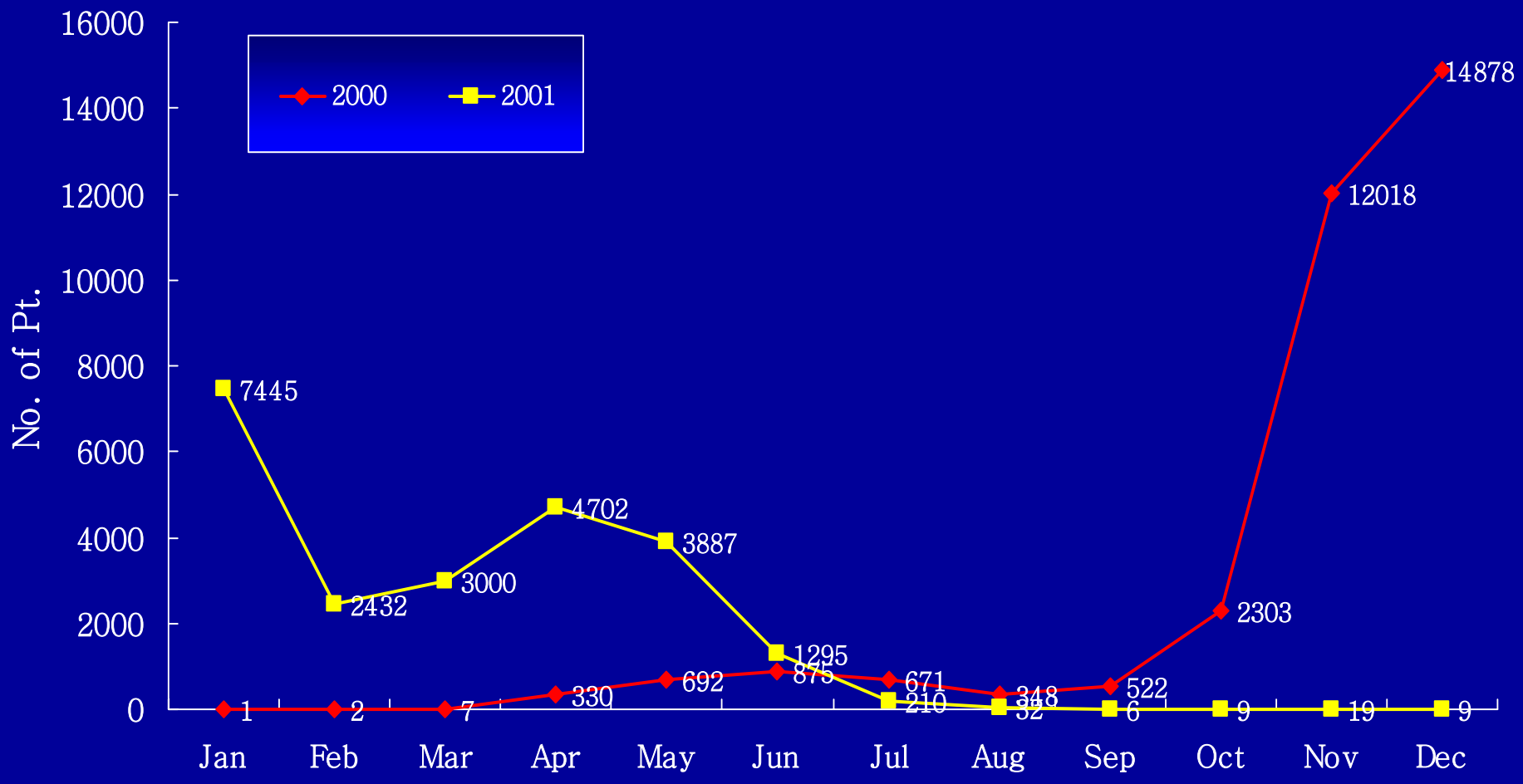
Vaccine-Preventable Diseases

Year	Poli	Diphteria	Pertu	tetanus	measles	mumps	JE
1965	174	179	2,676	-	6,748	2,259	752
1970	176	17	3,818		3,628	813	27
1975	23	27	1,182	-	4,973	1,848	117
1980	14	51	1,554	1	5,097	866	107
1985	-	2	479	5	1,283	1,237	-
1980	14	51	1,554	1	5,097	866	107
1985	-	2	479	5	1,283	1,237	-
1998	-	-	9	3	4	4,461	3
1999	-	-	2	4	88	2,262	1
2000	-	-	28	6	32,088	3,057	-
2001	-	--	9	6	23,047	1,675	1

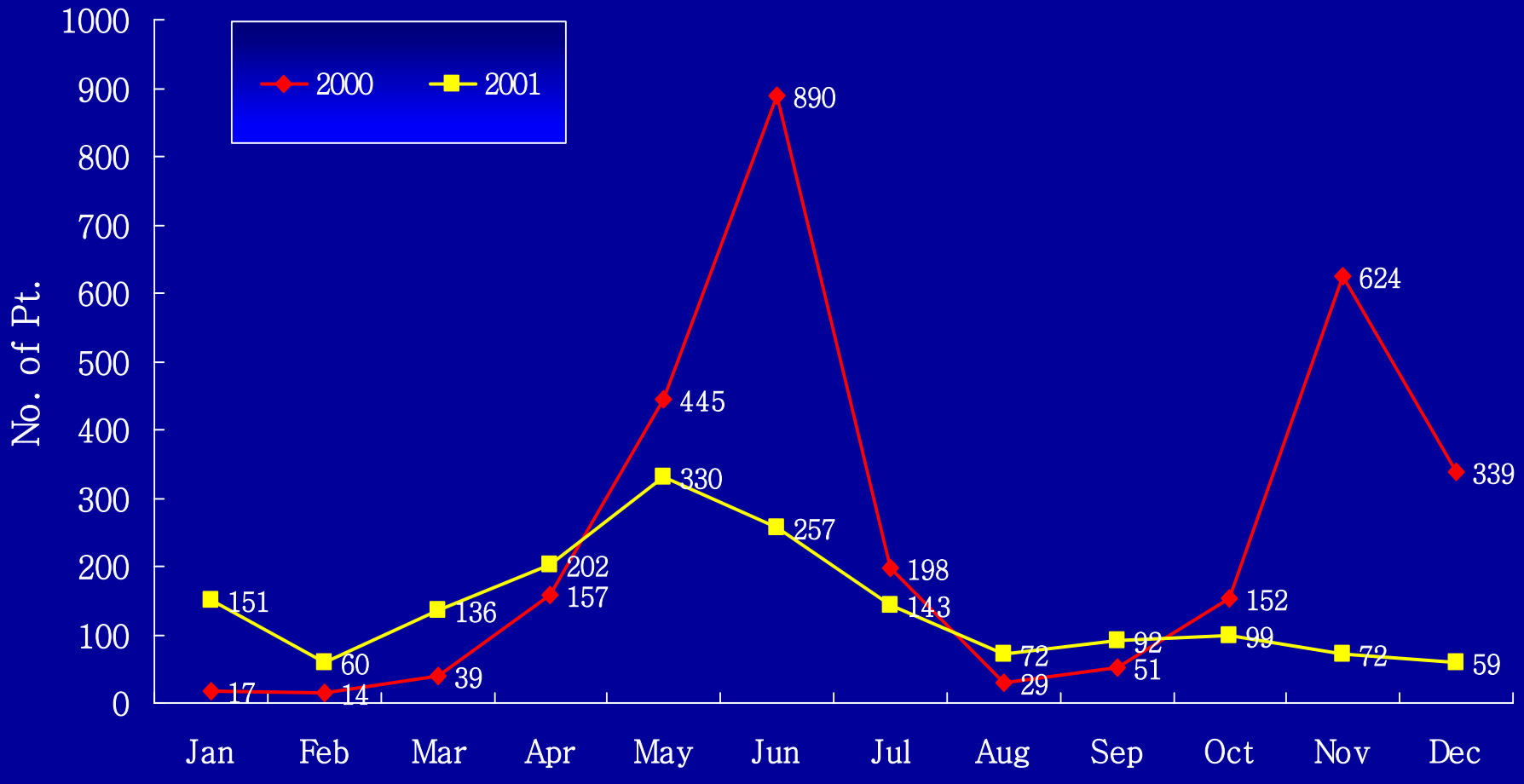
No. of Patients & MR Vaccine Coverage



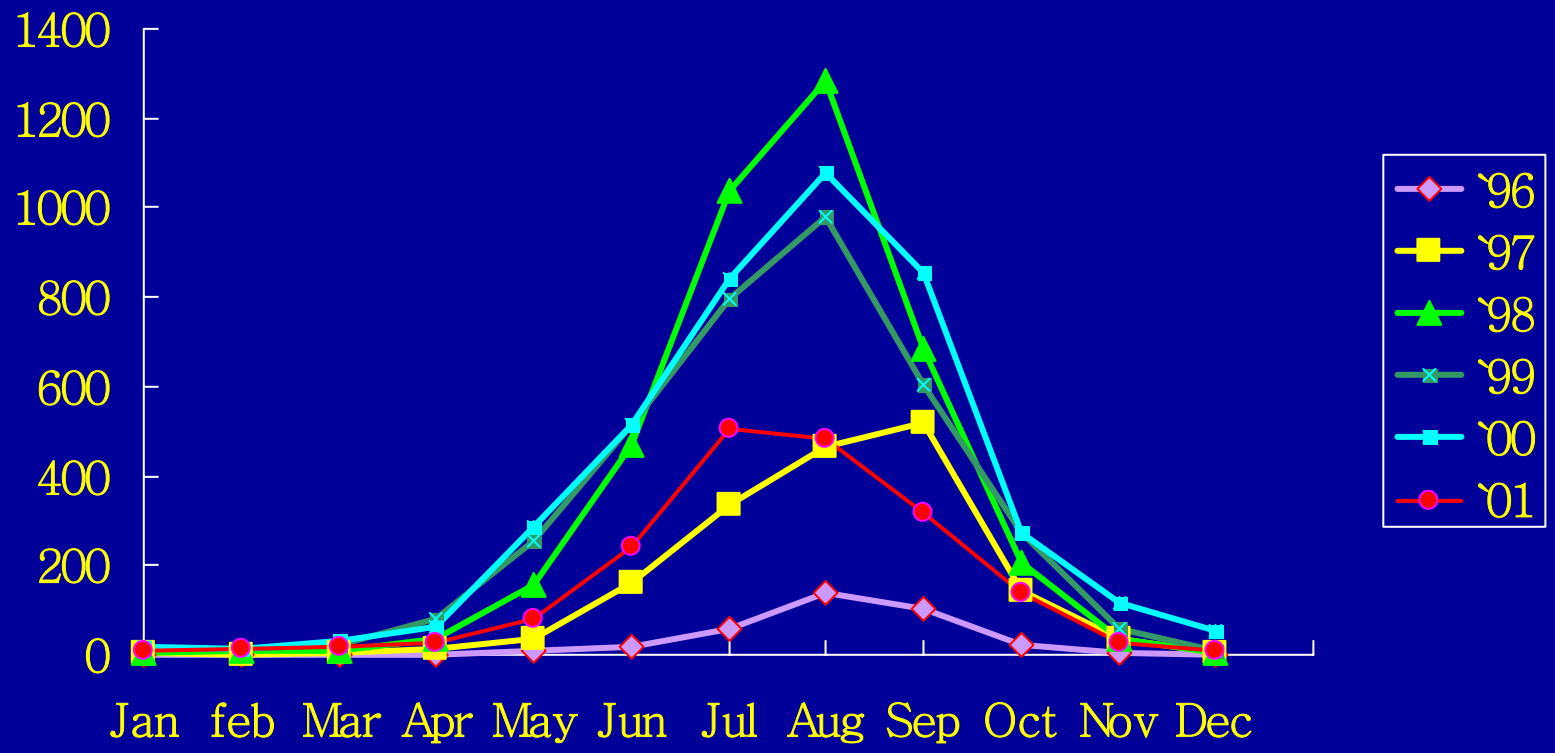
Measles


16000
14000
12000
10000
8000
6000
4000
2000
0
No. of Pt.
2000
2001
7445
2432
3000
4702
3887
1295
210
32
6
9
19
9
1
2
7
330
692
875
671
348
522
2303
12018
14878
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

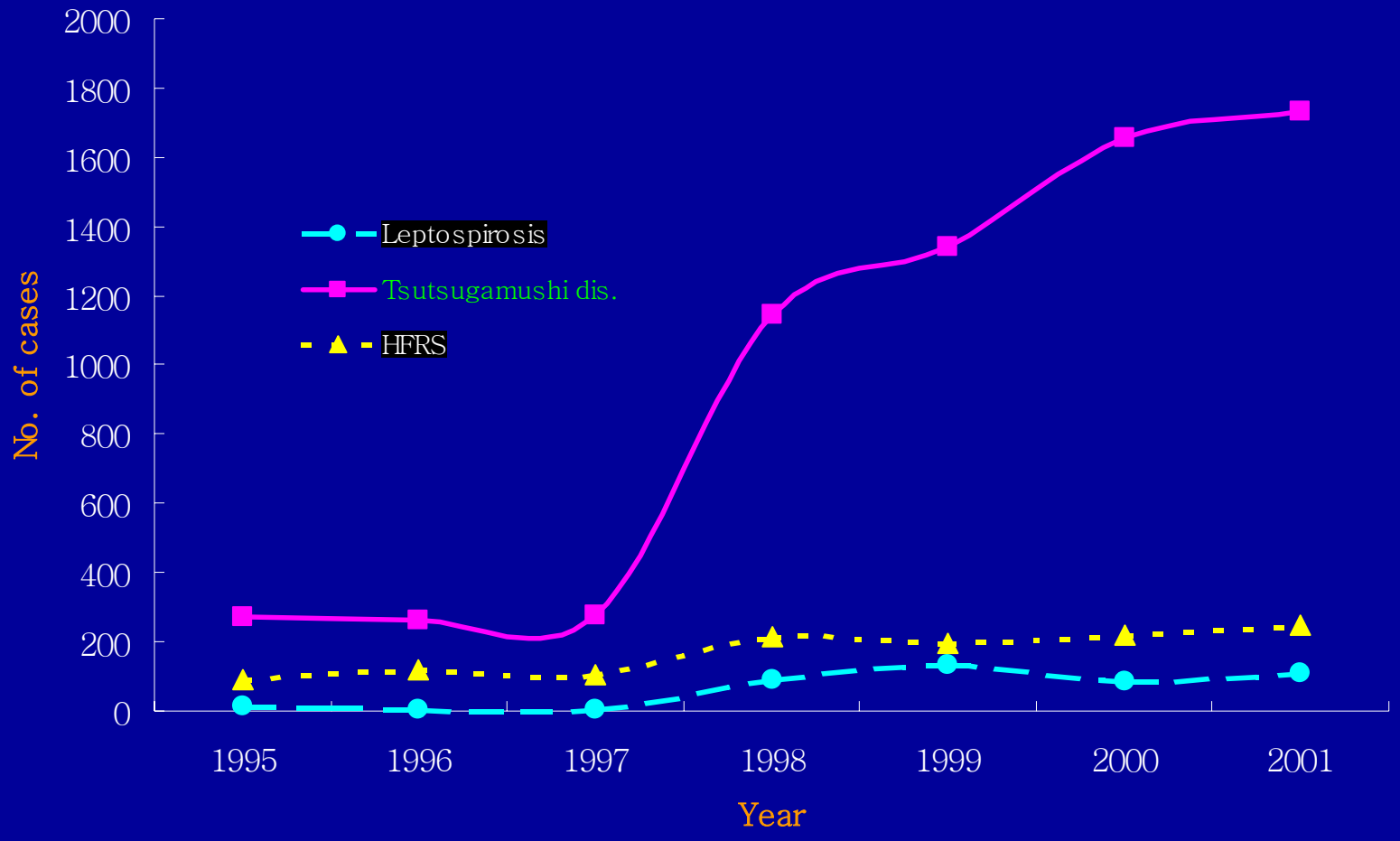
Mumps


2000
2001
No. of Pt.
1000
900
800
700
600
500
400
300
200
100
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
17
14
39
157
445
890
198
29
51
152
624
339
151
60
136
202
330
257
143
72
92
99
72
59

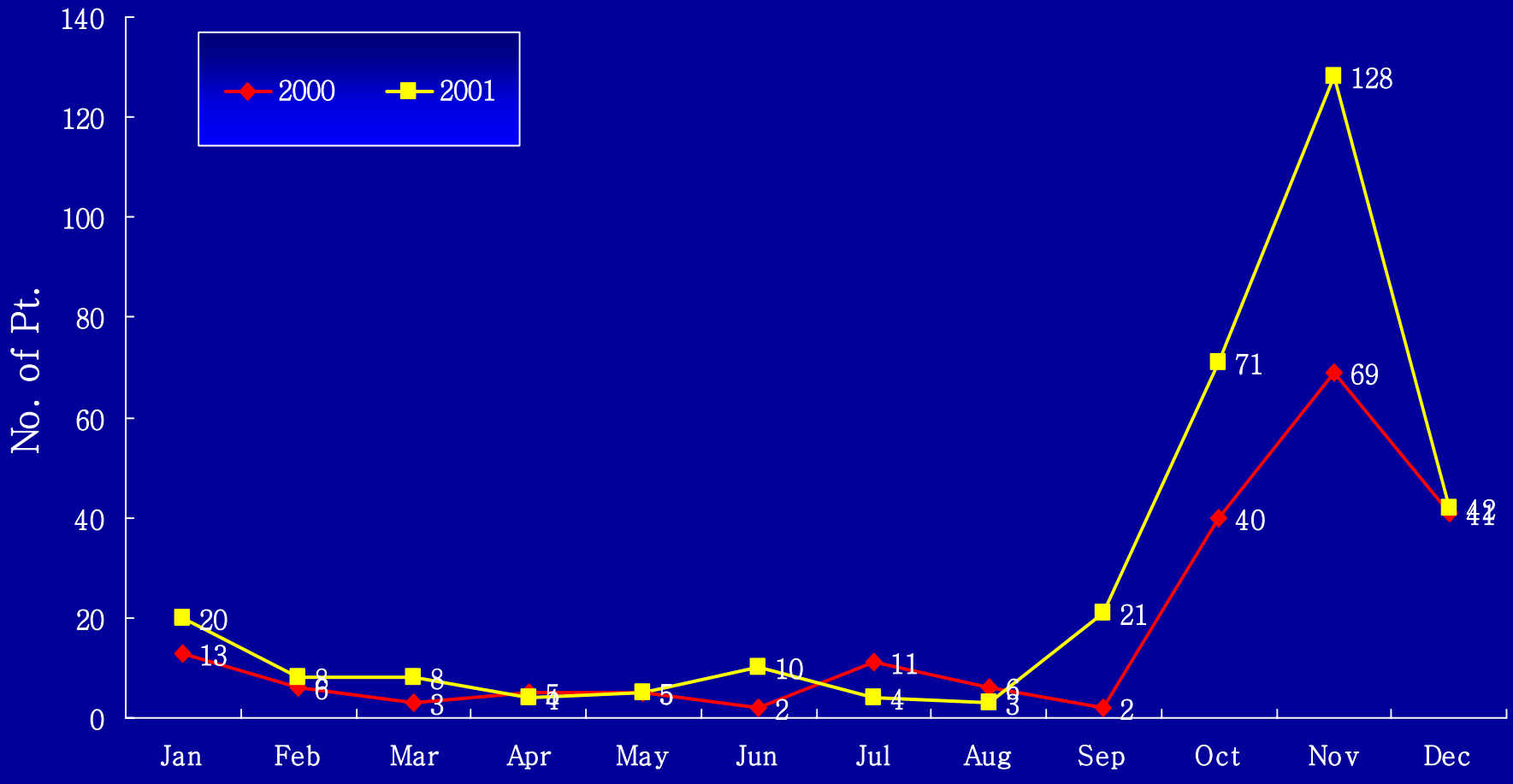
Malaria Incidence by Month



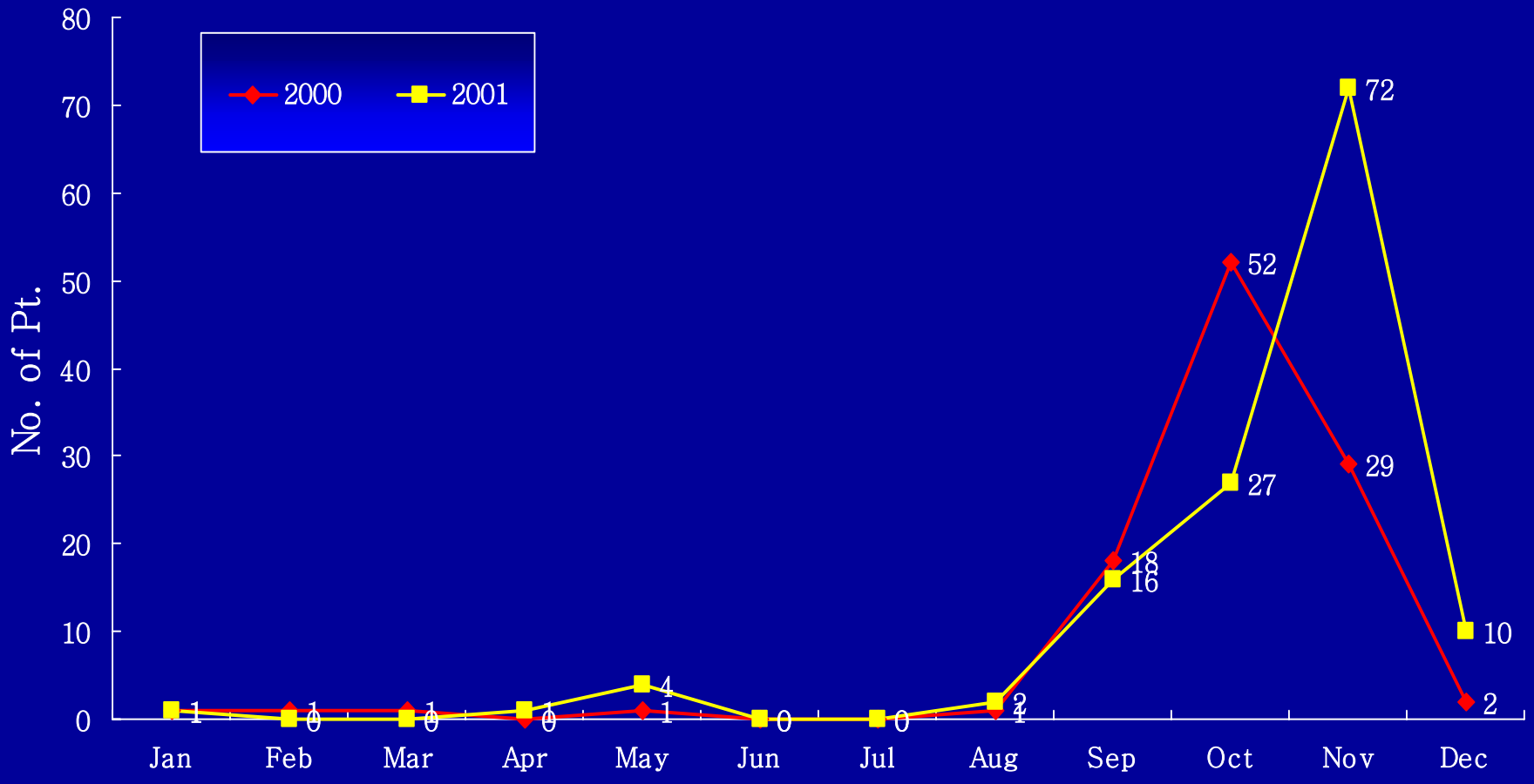
HFRS, Leptospirosis, & Tsutsugamushi dis.



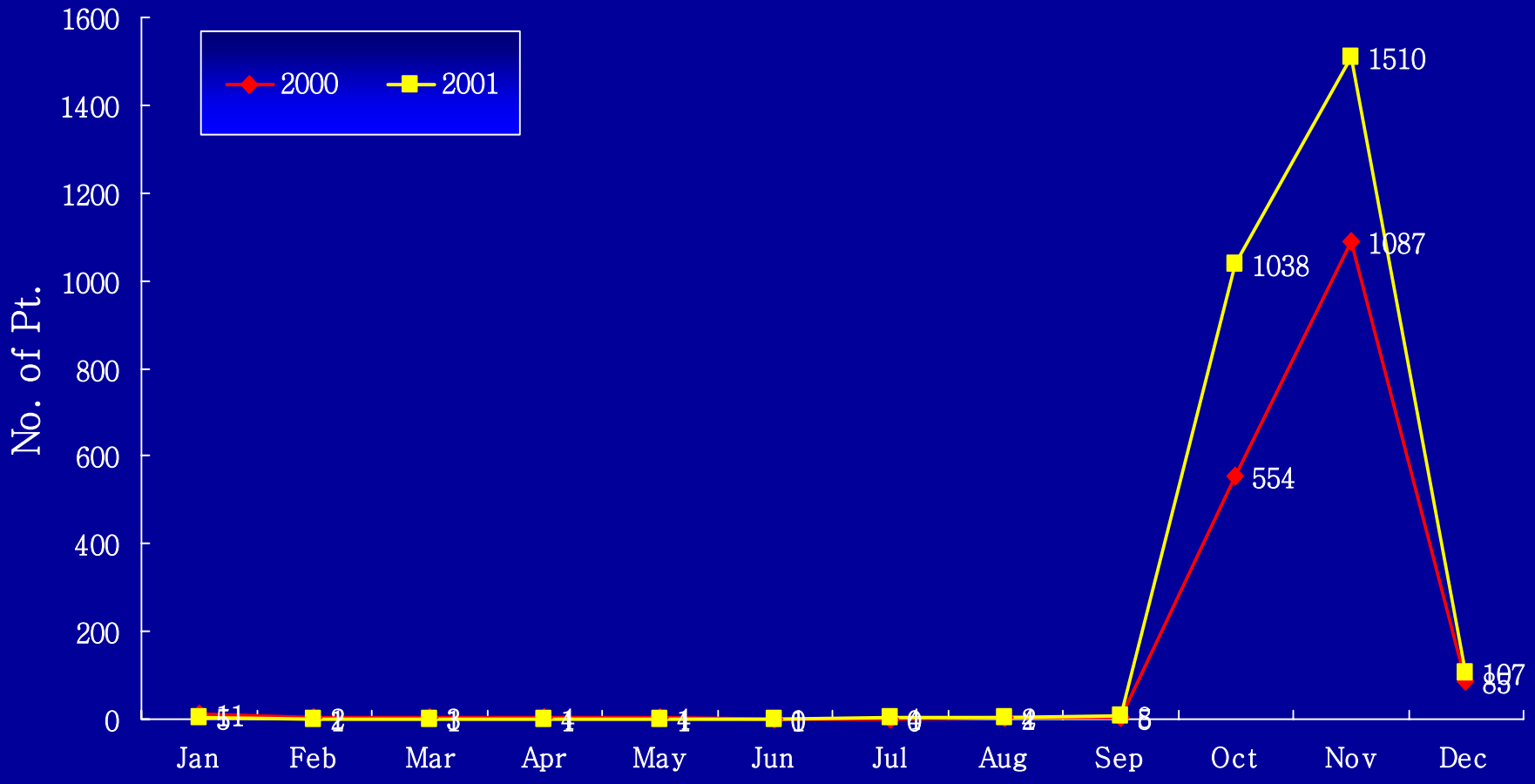
Hemorrhagic fever with renal syndrome (HFRS)



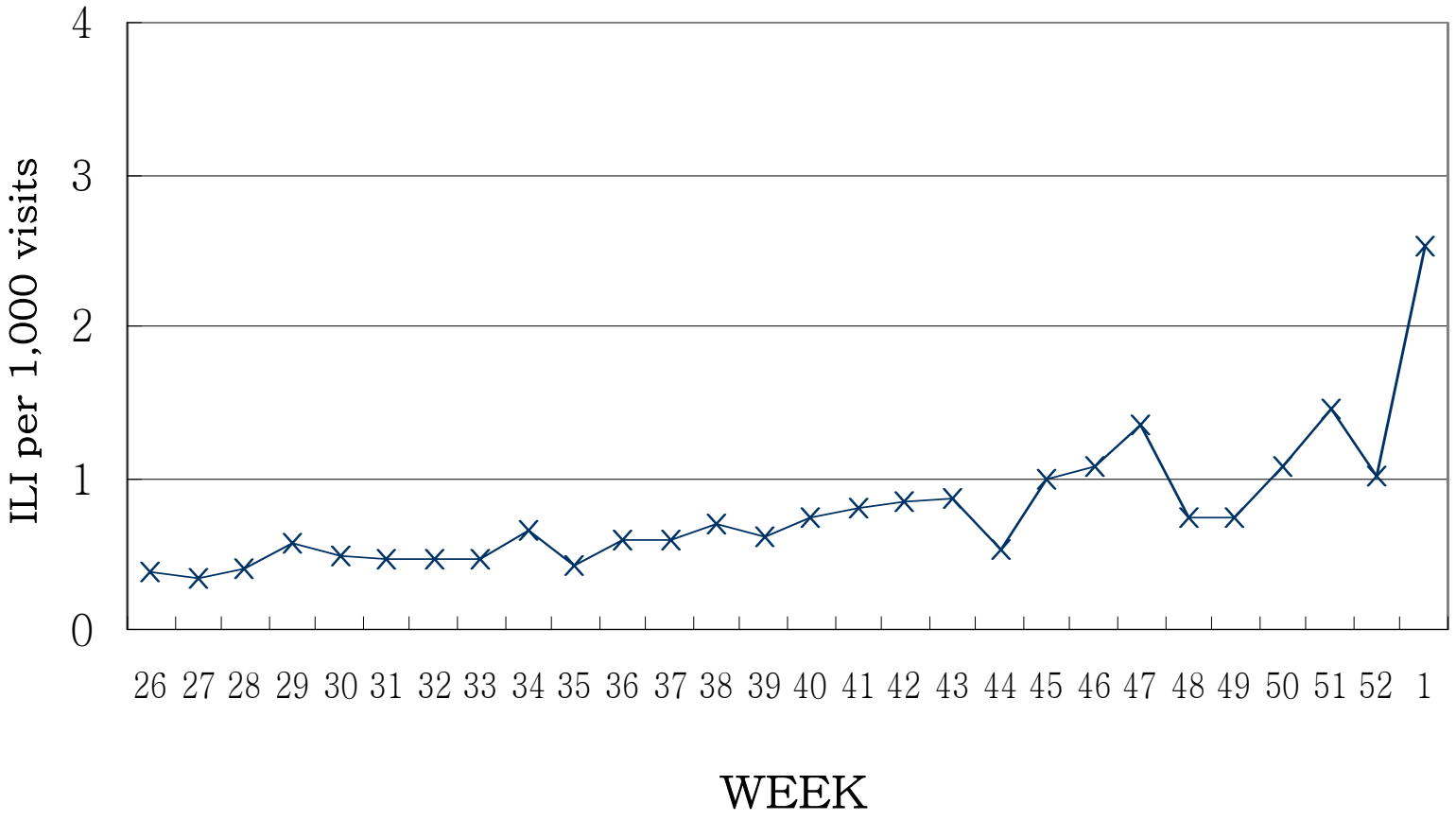
Leptospirosis



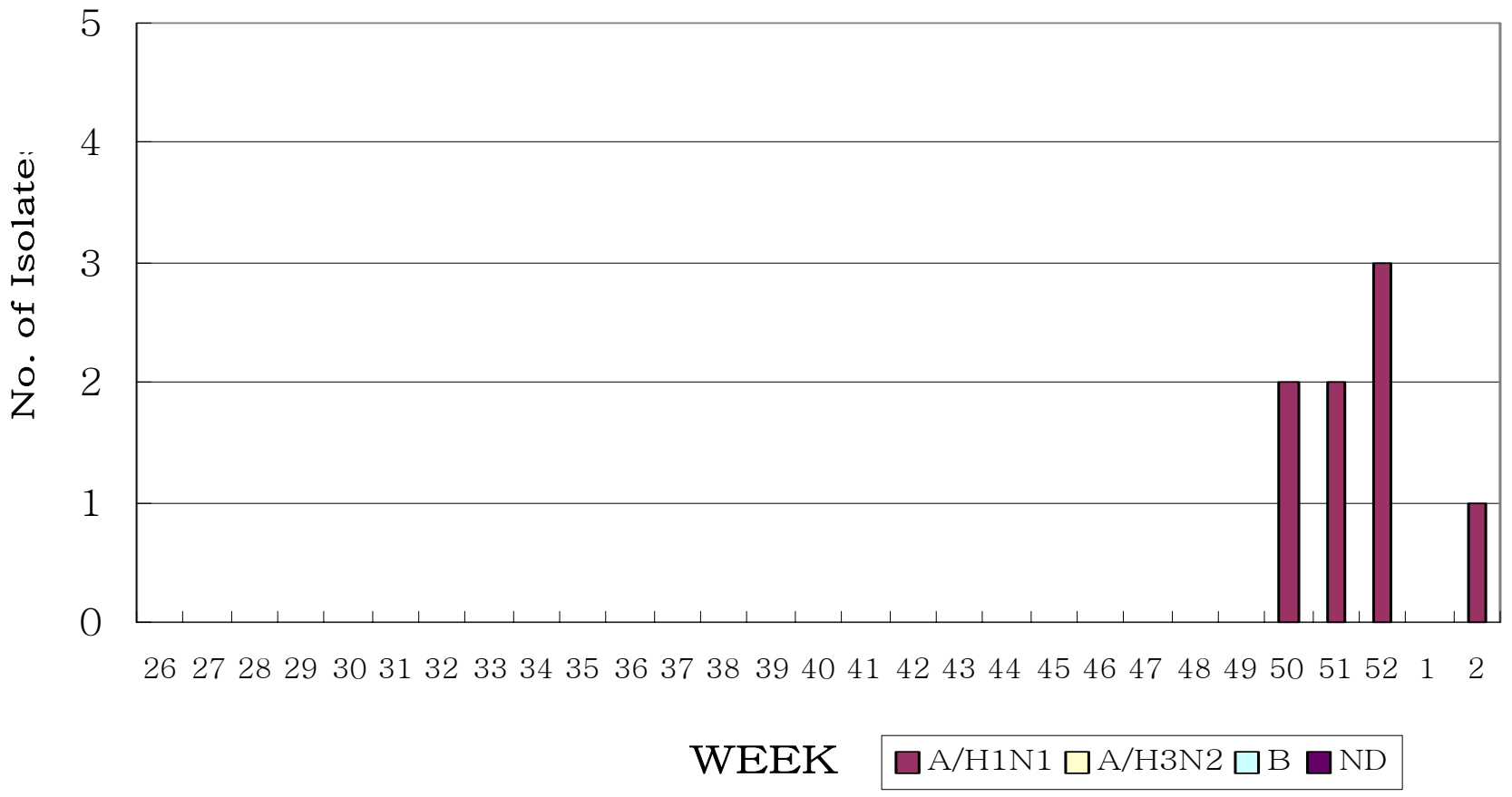
Tsutsugamushi dis. (Scrub typhus)



Influenza sentinel surveillance



Influenza virus isolation



4. Future direction

Recent Major Health Problems

- Outbreak of measles (Oct 2000 - Jun 2001)
  : 5-year measles elimination plan
- Outbreak of cholera (Aug – Sep 2001) and shigellosis (Dec 2001)
  : Food/Water-borne disease control plan
- Bioterrorism(Oct 2001)
  : Preparedness and response activity

⇨ ‘World-Cup Game’ and ‘Asian Game’

Improvement

- Complementary to current surveillance system
  - Inf. Dis. Specialist networking
  - ER-based syndromic surveillance
- Networking between medical institutions and public health center

Electronic Chart and EDI

Health insurance
EDI application
for physician's fee
- 50%

Agency for
Health Insurance
Inspection and Evaluation

National Institute of Health

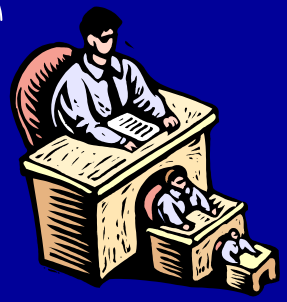
Provincial Health Institute

Public Health center

EDI established

EDI networking

EDI established



physician

Electronic Chart
– 20%

Thank you !!!