DISWEB in Korea

Jun-Wook, Kwon MD, DrPH.
Div. of Communicable Disease
Surveillance and Information
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 : 457 billion US dollars
  - (13th 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

- Physician
  - report (Tel/Fax)
  - feedback

- 242 PHC
  - report (EDI)
  - feedback

- 16 Provinces
  - report (EDI)
  - feedback

- NIH / MOHW
  - feedback

- 16 IPHE
  - referral
  - feedback
## Passive Surveillance Diseases

<table>
<thead>
<tr>
<th>Medical Institution</th>
<th>PHC</th>
<th>Province</th>
<th>NIH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st Class (6)</strong></td>
<td>cholera, typhoid fever, shigellosis</td>
<td></td>
<td></td>
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<tr>
<td><strong>2nd Class (9)</strong></td>
<td>measles, mumps, rubella, polio, hepatitis-B, Japanese encephalitis</td>
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<tr>
<td><strong>3rd class (18)</strong></td>
<td>malaria, TB, STI, tsutsugamushi, leptospirosis, HFRS, anthrax, rabies, influenza, AIDS</td>
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<tr>
<td><strong>4th class (13)</strong></td>
<td>yellow fever, dengue, marbug fever, lassa fever, ebola fever</td>
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</tbody>
</table>
Sentinel Surveillance Diseases

A. Sentinel Medical Institution ➔ PHC ➔ Province ➔ NIH

- Viral hepatitis
- Influenza
- STDs
  - syphilis, gonorrhea, chlamydia, non-gonococcal urethritis

B. Sentinel Surveillance Institution ➔ NIH

- Foreign epidemic diseases
  - Chagas disease, Angiostrongyliasis, Gnathostomiasis,
    Filariasis, Hydatidosis, CJD
- VRSA
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
  - English version is being prepared
CDMR

- Real view
  - English version is being prepared
Communicable Disease Monthly Report

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 10, 2000

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

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국립보건인적체과 감염정보실
E-mail: knhc_cdmr@nih.go.kr
3. Surveillance data
Water-borne Diseases

- Cholera
- Typhoid f.
- Shigellosis
Typhoid fever

No. of Pt.

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

Typhoid fever

2000 2001

22 19 22 15 22 43 43 34 22 20 26 26 23 26

7 116 43 29 34 20 26
### Vaccine-Preventable Diseases

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<tr>
<th>Year</th>
<th>Poli</th>
<th>Diphteria</th>
<th>Pertu</th>
<th>tetanus</th>
<th>measles</th>
<th>mumps</th>
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<td>174</td>
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Measles

Number of Patients

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
No. of Pt.

7445
2432
3000
4702
3887
1295
875
671
310
32
691
9
9

2000
4000
6000
8000
10000
12000
14000
16000
HFRS, Leptospirosis, & Tsutsugamushi dis.
Hemorrhagic fever with renal syndrome (HFRS)

No. of Pt.

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

2000 2001

20 13 8 3 5 3 5 10 11 4 3 2 21 71 40 69 128 42
Leptospirosis

No. of Pt.

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

2000 2001
Tsutsugamushi dis. (Scrub typhus)
Influenza sentinel surveillance
Influenza virus isolation

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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

EDI networking

National Institute of Health

Provincial Health Institute

Public Health center

EDI networking

EDI established

Electronic Chart
- 20%

physician
Thank you !!!