



Tokyo
Metropolitan
Government

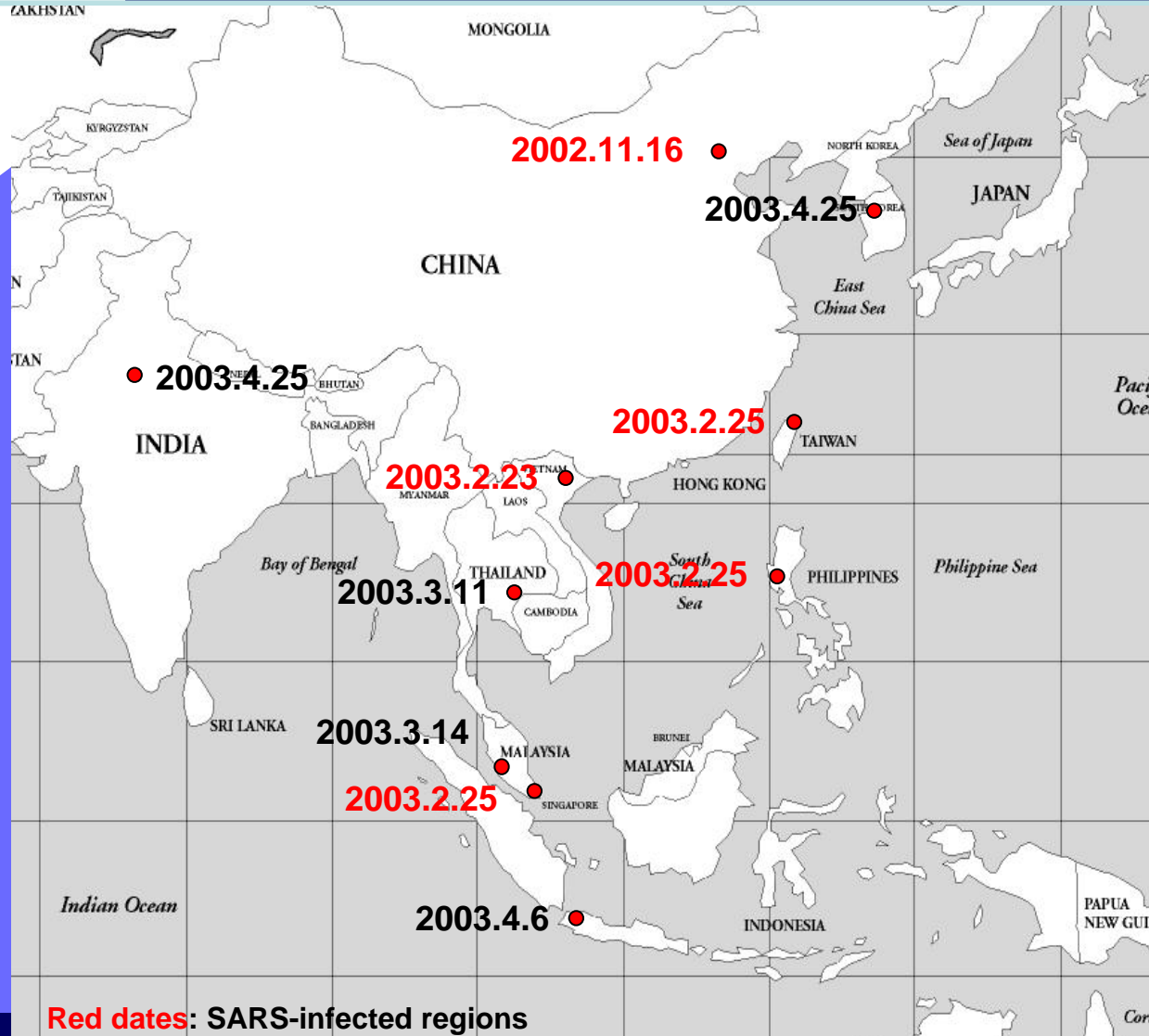
Asian Network of Major Cities 21 (ANMC 21)
Countermeasures to Combat Infectious Diseases in Asia

Proposal for Infectious Disease Information Network System



Tokyo Metropolitan Government

Dates of Onset for First Probable SARS Cases Reported to WHO



Information Flow on Infectious Disease Outbreaks in Foreign Countries

City A

SARS outbreak

Country A

WHO

Japan
(Ministry of Health, Labor and Welfare)

Tokyo Metropolitan Government

- 1) Delay in information relay
- 2) One-way relay of information
- 3) Information standardized

Lost information

Information Flow on Infectious Disease Outbreaks in Foreign Countries

- 1) Delay in communication
- 2) One-way communication
- 3) Standardized information

Examples of lost information:

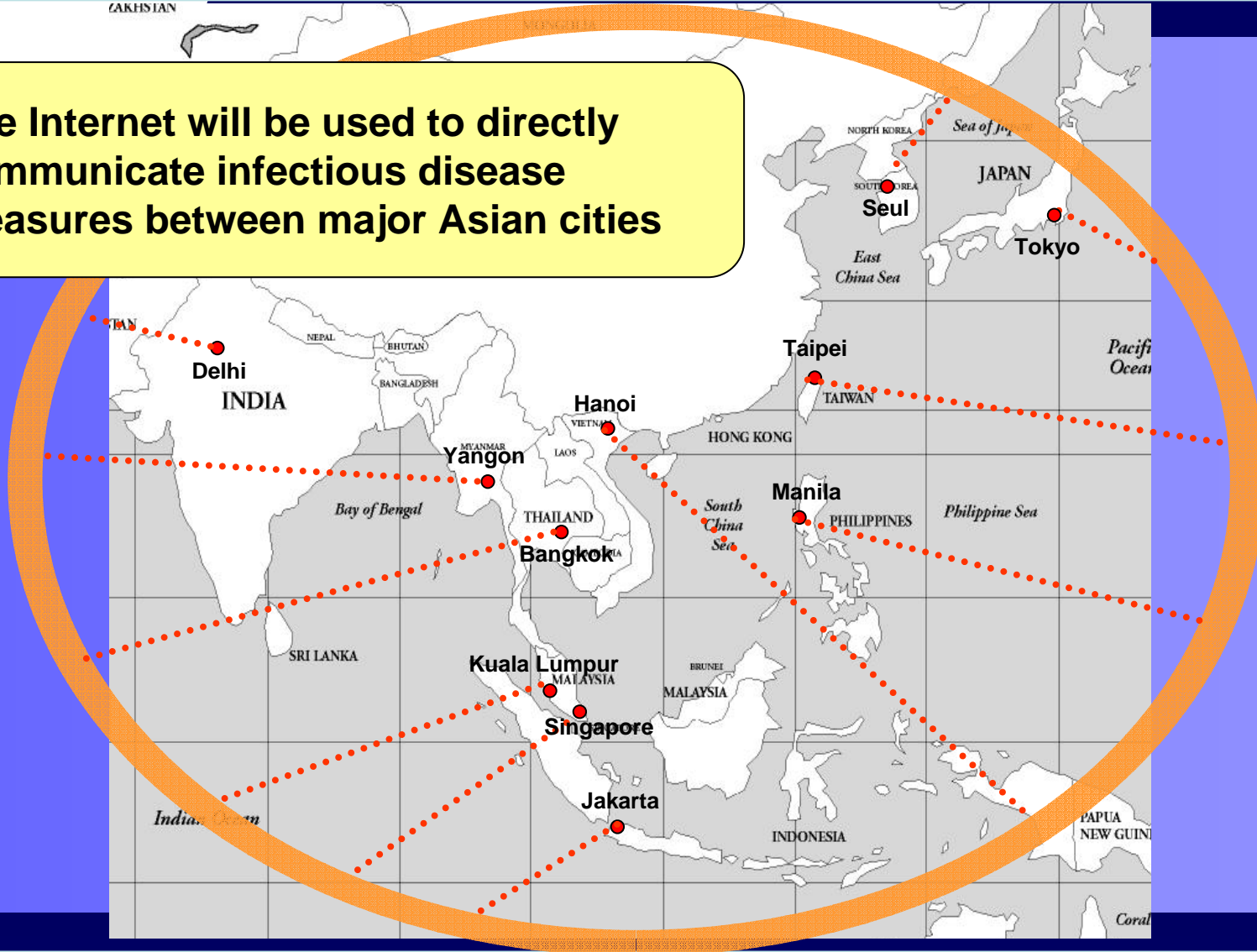
- Detailed symptoms for each patient
- Epidemiological conditions of group infections
- Accuracy and limits of inspection
- Specific treatment method and evaluation

- Prevent prompt and effective steps at healthcare facilities
- May seriously impact city functions

Need for a new infectious disease information network to directly link major Asian cities

A New Infectious Disease Information Network System

The Internet will be used to directly communicate infectious disease measures between major Asian cities



1) Direct relay of information

Information transmitted from each city communicated promptly without processing.

2) Interactive

Inquiries can be made on needed information

3) Reliable

Participants in the network limited to persons and organizations that are validated and registered.

High-level security ensured

Effects of A New Information System

1) Enhancement of health crisis management systems

Prompt information collection and initial action

2) Precise preventative steps

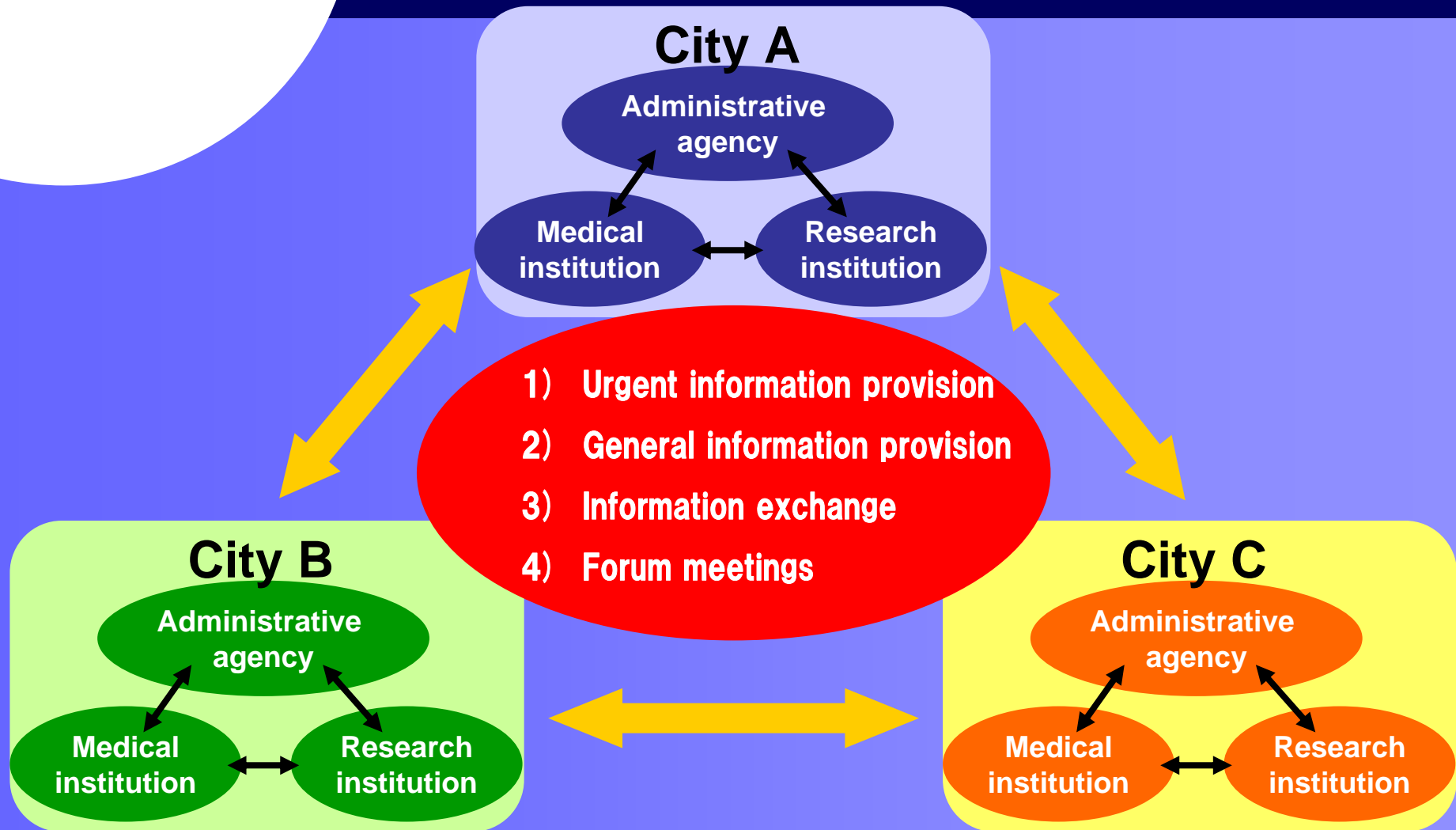
Early detection, infection control, disinfection, etc.

3) Effective treatment

Yet-to-be-established treatments and their evaluation

4) Upgrading measures through mutual exchange

Public health, clinical medicine, basic research



1) Urgent Information Provision

As the information transmitter is specified, reliable information can be communicated promptly.

City A

A probable SARS case breaks out

Information

Information

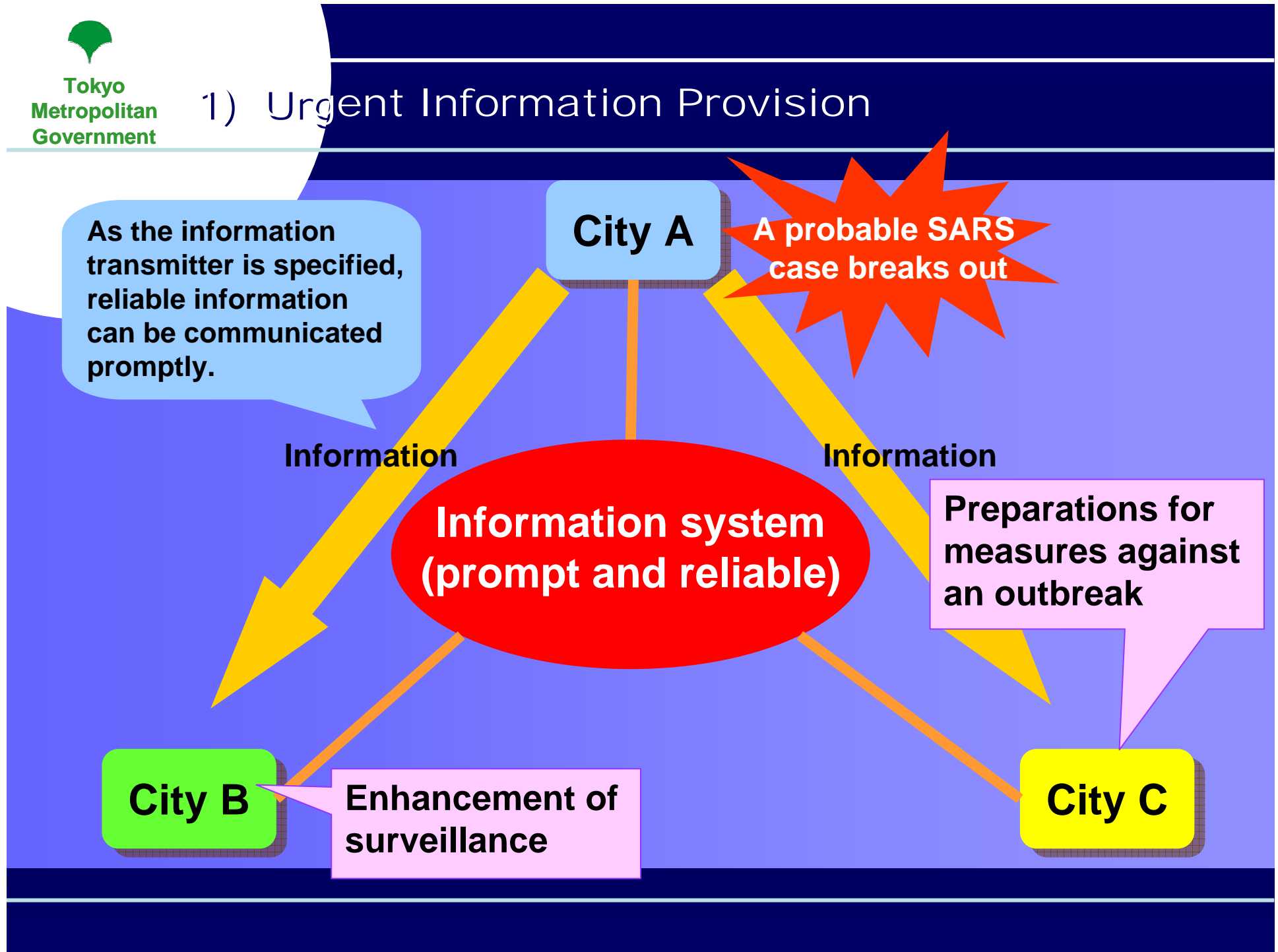
Information system
(prompt and reliable)

Preparations for measures against an outbreak

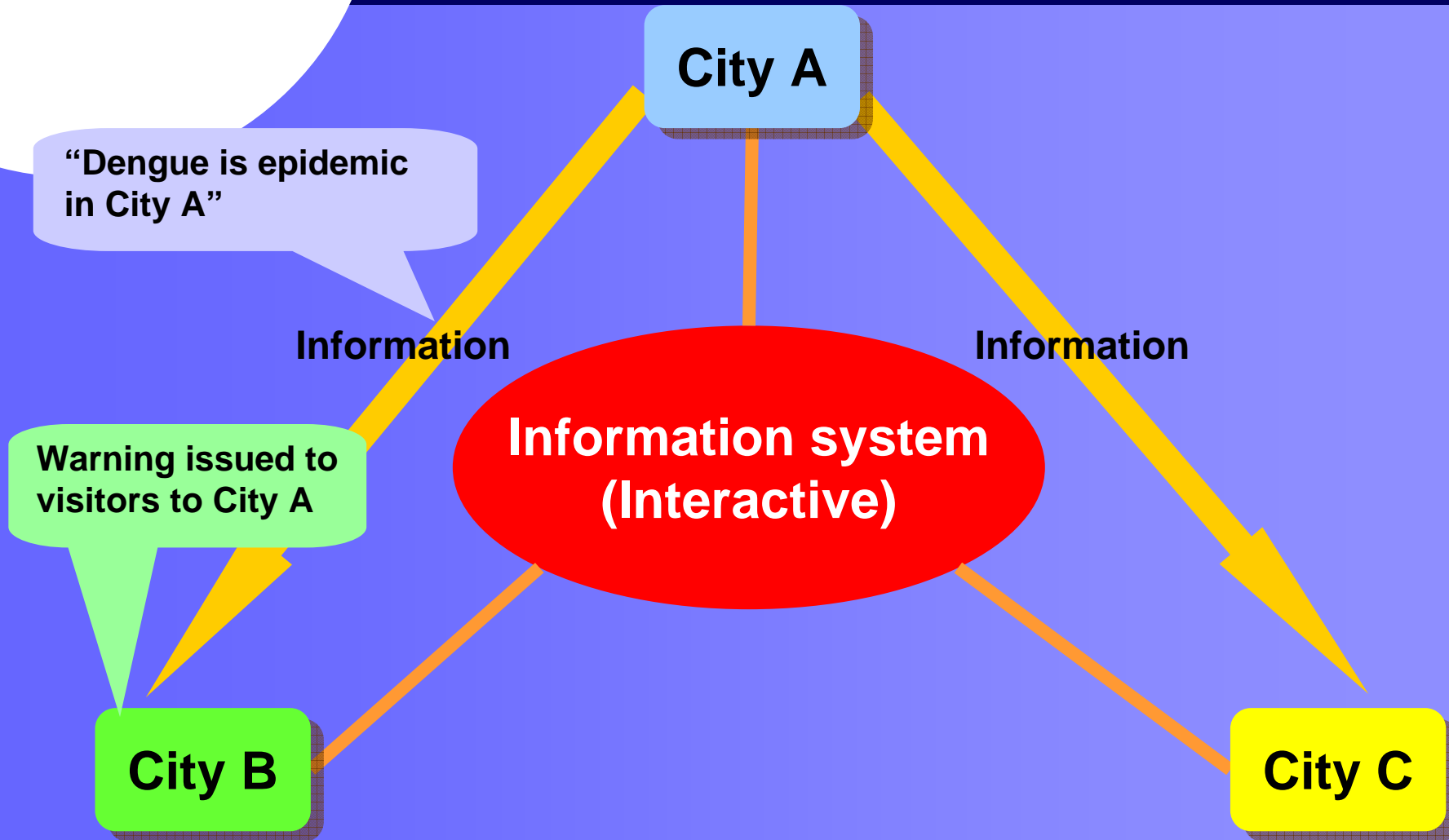
City B

Enhancement of surveillance

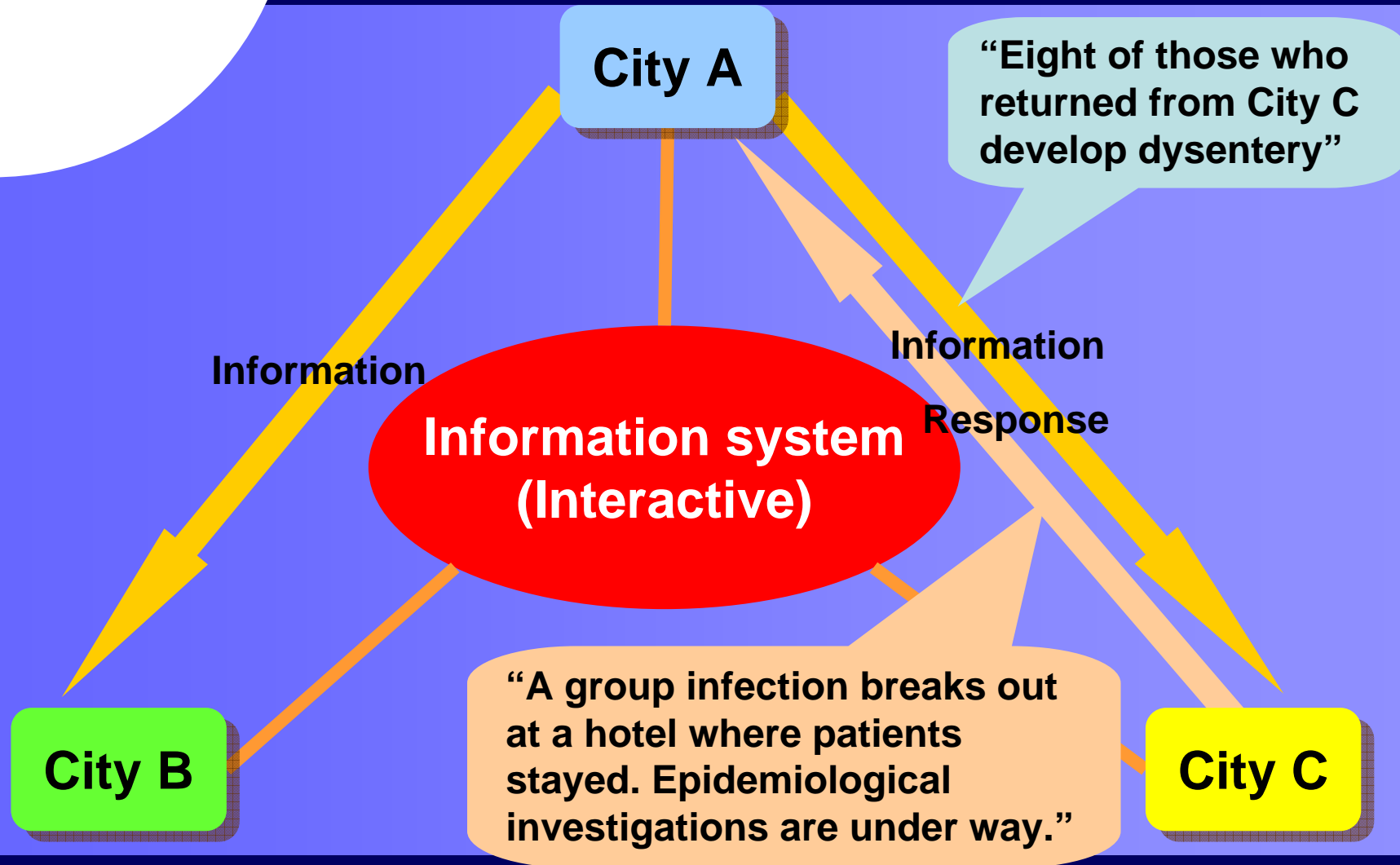
City C



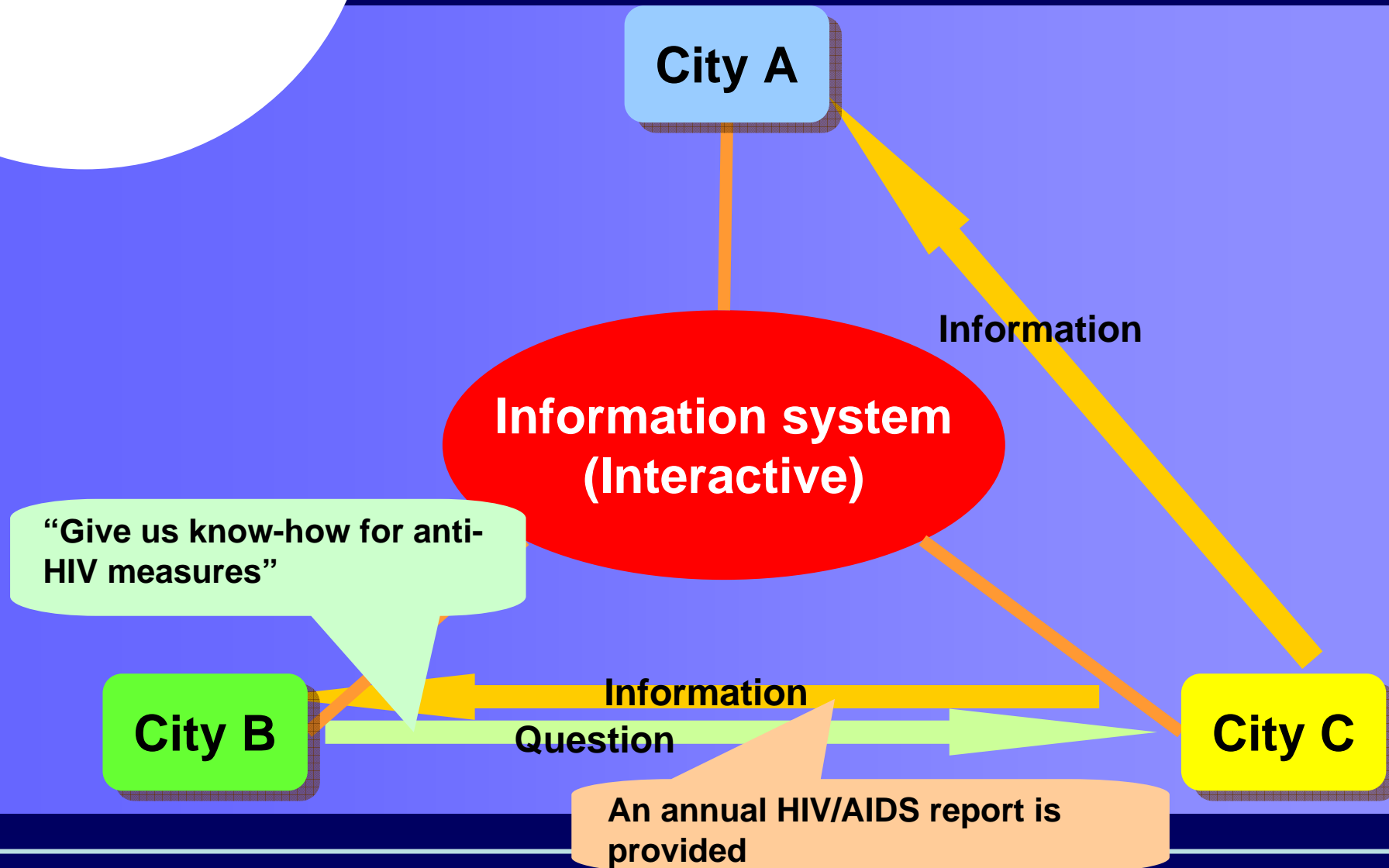
2) General Information Provision 1



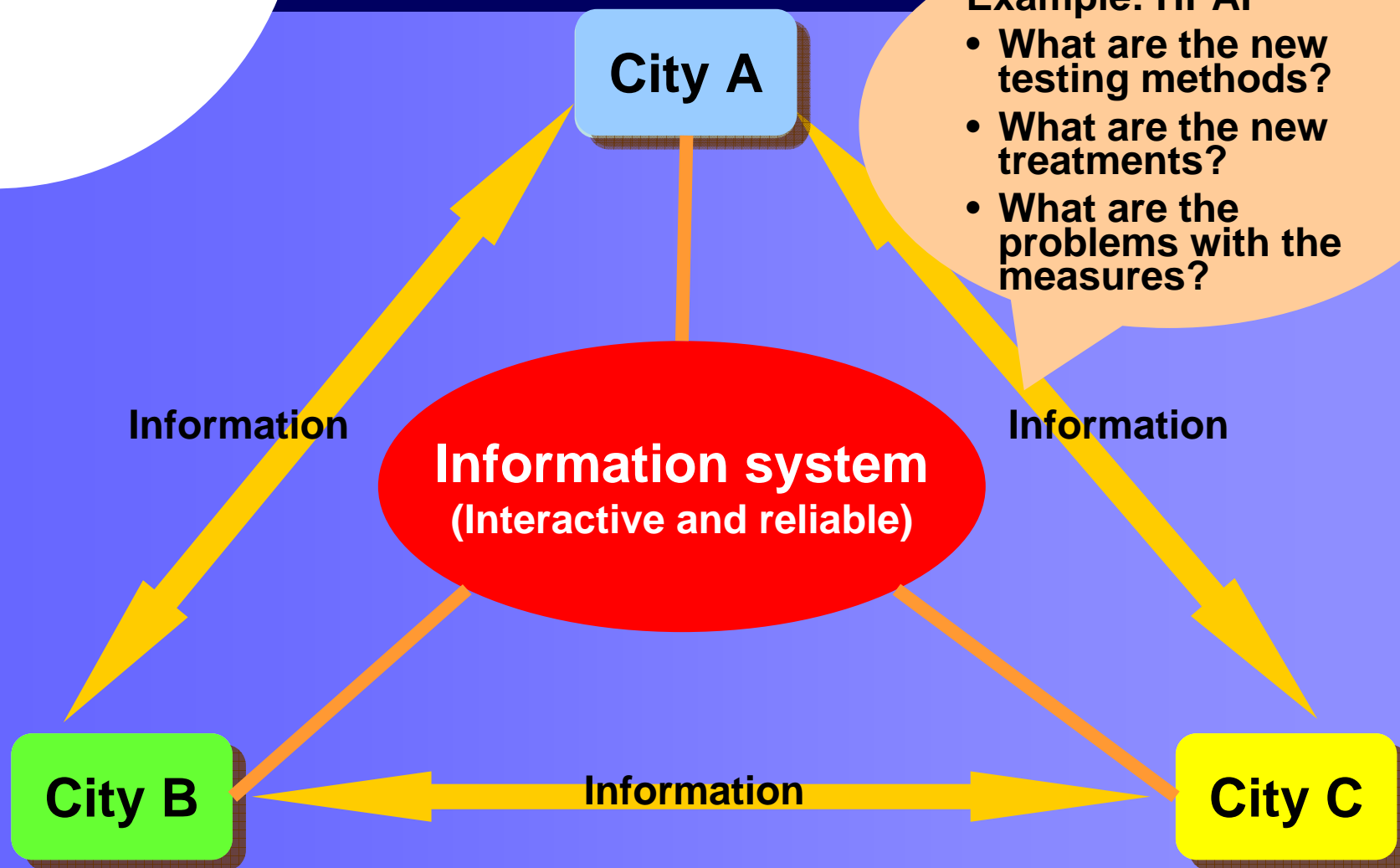
2) General Information Provision 2



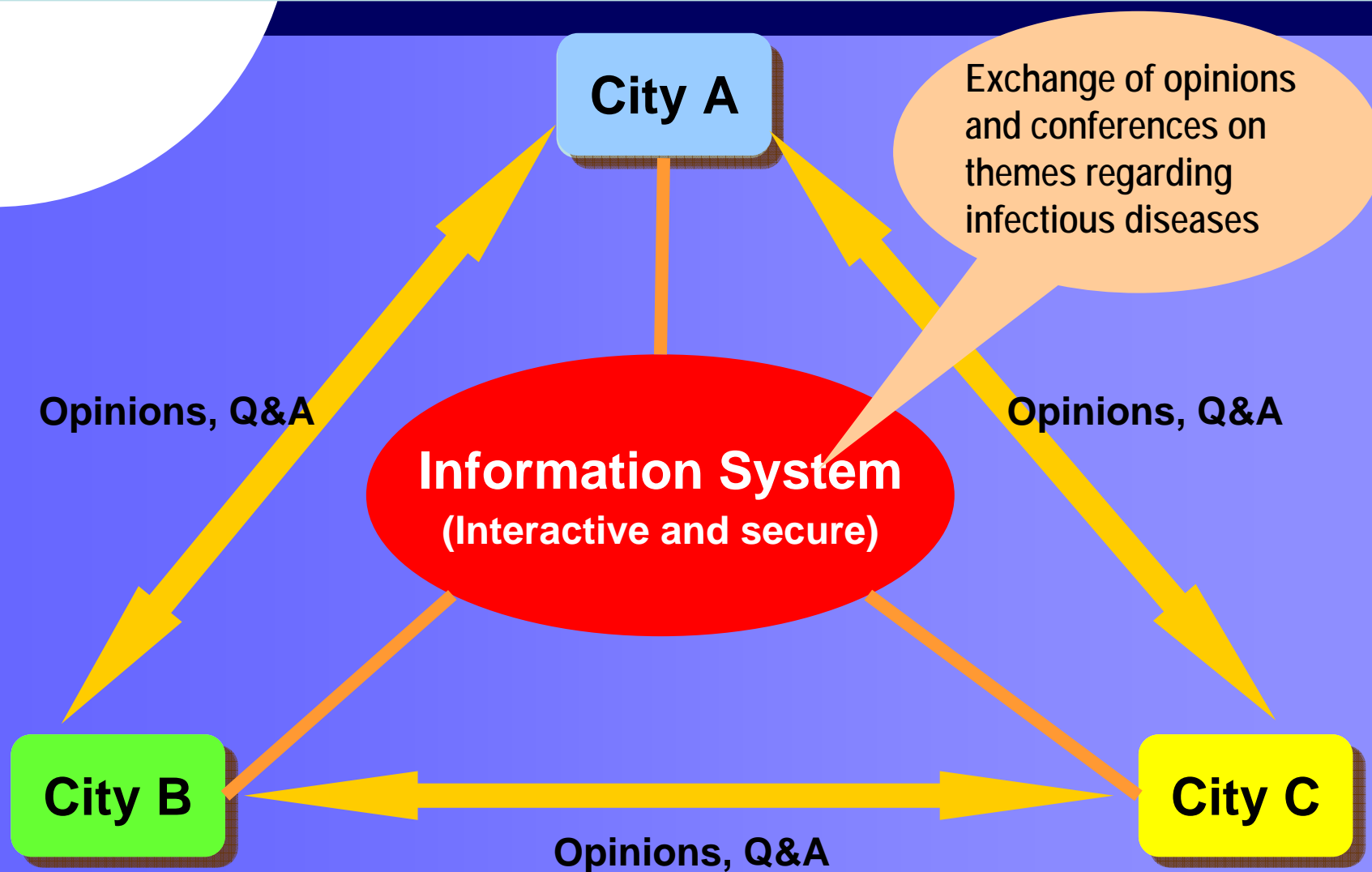
2) General Information Provision 3



3) Information Exchange



4) Forum Meetings



Tokyo Metropolitan Government's proposal

(Background)

Emergent infectious diseases spreading across borders

(Problem)

Need for direct link between major Asian cities

(Proposal)

Construction of a new Internet information system

Concept: Direct communication of information, interactive, reliable

(Usage)

**Urgent information, general information,
information exchange, forum meetings**



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example scenario 1

1 Urgent information 1

1 From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B? City C officials participated in the conference in City B.

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

None of the people who participated in the conference in City B have developed symptoms.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?



Tokyo
Metropolitan

conference room - Microsoft Internet Explorer

ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

Date of Input 3/10/200X
Subject About the SARS patient identified in City A
Affiliation/ City Infectious Disease Section, Public Health Bureau, City A
Name △△ △△
Readers Column

This is to urgently inform you that the suspect SARS patient, who was identified in our city on September 28, 200X, tested positive for the SARS corona virus in the RT-PCR and serologic tests.
The patient has previously traveled overseas, as detailed below. The relevant cities should be on alert.

Information on patient=====

1. Patient ID
2. Sex Man
3. Age 35
4. Occupation Researcher, Infectious Disease Laboratory, Medical Department, A University
5. Diagnosis name
6. Method of Diagnosis
7. Estimated Date of Infection
8. History of overseas travel City B in Country B September 20-23, 200X
9. Purpose of overseas travel
10. Signs and Symptoms
11. Date of Symptom Onset 9/22/200X
12. Date of Medical Examination
13. Date of diagnosis
14. Date of death
15. Treatment and Effects
16. Estimated Route of Infection
17. Free filling in column

Table=Themes&MessagesGroupID=2&ThemeID=102&MessageID=102

nothing

インターネット

2 Question 1 (→City A)

From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B? City C officials participated in the conference in City B.

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

None of the people who participated in the conference in City B have developed symptoms.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

conference room - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

アドレス(①) http://218.45.212.92/forumdemo_dev/forumsource/forummain.cfm 移動

リンク ActiveReportsの詳細 HotMailの無料サービス Windows Windows Media リンクの変更

Norton AntiVirus

Health Crisis Management Information Network

importance: important
Date: 3/10/200X
Recorder Acity Officer
Title About the SARS patient identified in City A
URL
E-MAIL

We would be happy to be informed of details of the patient's movements in City B, including the means of transportation and lodging facilities used.

Table=Messages&MessagesGroupID=2&ThemeID=102&MessageID=100039

- [Avian influenza](#)
- [SARS](#)
- [Surveillance System](#)
- [AIDS](#)
- [Others](#)

- Avian influenza
nothing
- SARS
 - [About the SARS patient identified in City A](#) 3/10/200X
 - [Acity Officer submitted]-- [member list](#)
- Surveillance System
nothing
- AIDS
nothing
- Others
nothing

javascript:RepMessage(0)

インターネット

3 Core Question 1 (→City B)

1 From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B?
City C officials participated in the conference in City B

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

None of the people who participated in the conference in City B have developed symptoms.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

conference room - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

アドレス(D) http://218.45.212.92/forumdemo_dev/forumsource/forummain.cfm

リンク ActiveReportsの詳細 HotMailの無料サービス Windows Windows Media リンクの変更

Norton AntiVirus

Health Crisis-Management Information Network
for Infectious Disease

Reload Latest order

Category: SARS / Theme: About the SARS patient identified in City A

importance: important
Date: 3/10/200X
Recorder: Acity Officer
Title: RE:About the SARS patient identified in City A
URL:
E-MAIL:

This is in response to your question.
 We have faxed you the results of our investigation into the patient's activities, including the flight numbers, lodging facilities and restaurants used.
 Please feel free to ask any further questions.

Table=Messages&MessagesGroupID=2&ThemeID=102&MessageID=100040

[SARS](#)
[Surveillance System](#)
[AIDS](#)
[Others](#)

Search New Theme Reload

Avian influenza
nothing

SARS
Owner About the SARS patient identified 3/10/200X
 in City A
 --[Acity Officer submitted]-- [member list](#)

Surveillance System
AIDS
nothing
Others
nothing

インターネット

4 Question 2 (→Cities A and B)

1 From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B? City C officials participated in the conference in City B.

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

None of the people who participated in the conference in City B have developed symptoms.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

conference room - Microsoft Internet Explorer

ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

アドレス(📄) http://218.45.212.92/forumdemo_dev/forumsource/forummain.cfm 移動

リンク ActiveReportsの詳細 HotMailの無料サービス Windows Windows Media リンクの変更

Norton AntiVirus

importance: important
Date: 5/10/200X
Recorder Ccity Officer
Title RE:About the SARS patient identified in City A
URL
E-MAIL

City C officials participated in the conference held in City B. Is the suspected infection location in City A or B? We would be happy if you could inform us, even if this judgement is only based on the current stage of your investigation.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100041

4 From

5 From

6 From

7 From

- Sign of a little urgent
- Sign of very urgent
- Sign of theme only of specific member

- Avian influenza
- SARS
- Surveillance System
- AIDS
- Others

Search New Theme Reload

- Avian influenza
 - nothing
- SARS
 - Member About the SARS patient identified 3/10/200X in City A
 --[Acity Officer submitted]-- [member_list](#)
- Surveillance System
- AIDS
 - nothing
- Others
 - nothing

City C officials participated in the conference held in City B. Is the suspected infection location in City A or B? We would be happy if you could inform us, even if this judgement is only based on the current stage of your investigation.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100041

JP 一般

5 re Question 2 (→City C)

From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B? City C officials participated in the conference in City B

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

None of the people who participated in the conference in City B have developed symptoms.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

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ファイル(E) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

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リンク ActiveReportsの詳細 HotMailの無料サービス Windows Windows Media リンクの変更

Norton AntiVirus

Health Crisis-Management Information Network Reload Latest order

importance: important
Date: 5/10/200X
Recorder Acity Officer
Title RE:About the SARS patient identified in City A
URL
E-MAIL

The patient had been engaged in research on the SARS corona virus in the infectious disease laboratory of a university's medical department. We are now investigating how the virus was handled in the laboratory, environmental inspections carried out in the laboratory, and health checks for the patient's colleagues and others who were in contact with the patient. No other SARS cases have been reported in City A, and we currently suspect that the patient was infected in the laboratory.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100042

5 From

6 From

7 From

- Avian influenza
- SARS
- Surveillance System
- AIDS
- Others

Search New Theme Reload

Avian influenza
nothing

SARS
Owner About the SARS patient identified in City A 3/10/200X
 --[Acity Officer submitted]-- [member list](#)

Surveillance System
nothing

AIDS
nothing

Others
nothing

have been reported in City A, and we currently suspect that the patient was infected in the laboratory.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100042

http://218.45.212.92/forumdemo_dev/forumsource/Message_detail.cfm?table=Messages&groupid=2&themeid=102&messageid=100042

インターネット

Question 2 (→City C)

From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B? City C officials participated in the conference in City B

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

The patient is thought to have been infected at a laboratory in City A.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

conference room - Microsoft Internet Explorer

http://218.45.212.92/forumdemo_dev/forumsource/forummain.cfm

Health Crisis-Management Information Network
for Infectious Disease

Reload Latest order

Category SARS / Theme About the SARS patient identified in City A

importance: important
Date: 5/10/200X
Recorder Bcity Officer
Title RE:About the SARS patient identified in City A
URL
E-MAIL

Of the participants in the academic conference held in City B, none have been reported as having SARS symptoms. Furthermore, no SARS cases were reported in City B around the time of the conference. We therefore suspect that the patient in question was infected in some location other than City B.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100043

no SARS cases were reported in City B around the time of the conference. We therefore suspect that the patient in question was infected in some location other than City B.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100043

Avian influenza
 SARS
 Surveillance System
 AIDS
 Others

Search New Theme Reload

Avian influenza
 nothing
 SARS
 Member About the SARS patient identified 3/10/200X
 in City A
 --[Acity Officer submitted]-- [member list](#)
 Surveillance System
 AIDS
 nothing
 Others
 nothing

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5 From

6 From

7 From

7 Urgent information 2

From City A

A SARS case has occurred in City A.
The patient has previously visited City B

2 From City B

What are the details of the patient's visit to City B including the means of transportation and lodging locations?

3 From City A

We have faxed you information including flights and lodging facilities used by the patient.

4 From City C

Was the patient infected in City A or at a conference in City B? City C officials participated in the conference in City B

5 From City A

The patient is thought to have been infected at a laboratory in City A.

6 From City B

None of the people who participated in the conference in City B have developed symptoms.

7 From City A

What are the details of the patient's visit to City B including the means of transportation and lodging locations?



importance: normal
 Date: 8/10/200X
 Recorder Acity Officer
 Title Urgent information 2
 URL
 E-MAIL

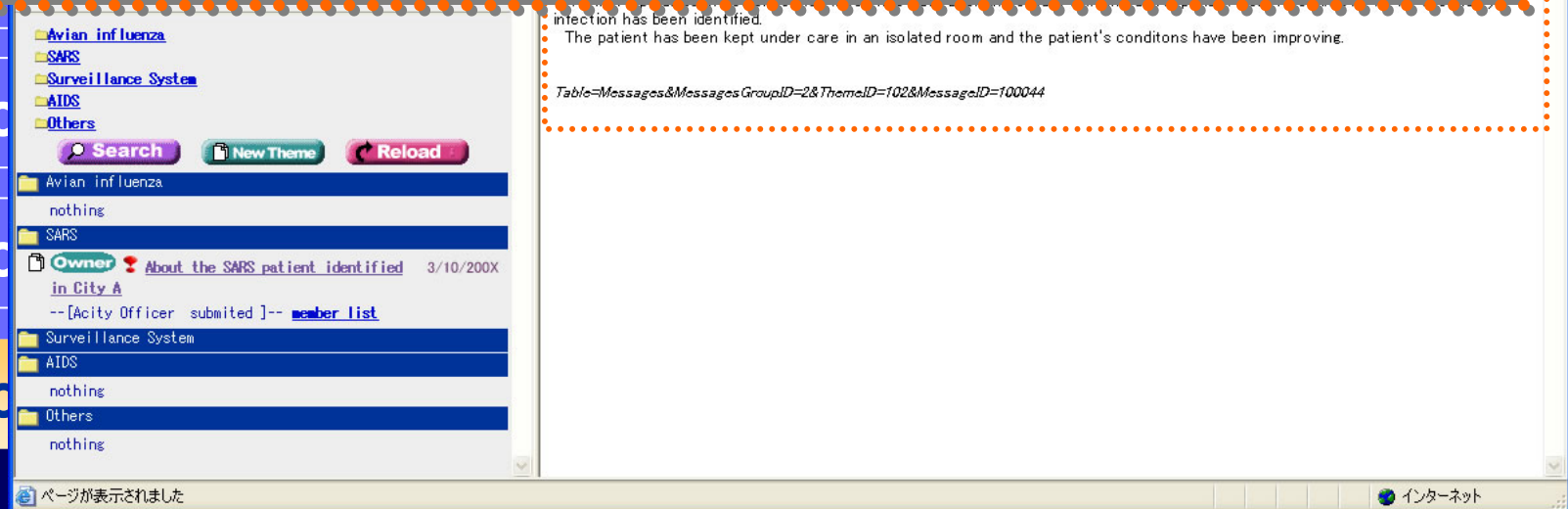
A follow-up has been completed for those who have been in contact with the SARS patient discovered in City A. No secondary infection has been identified.
 The patient has been kept under care in an isolated room and the patient's conditons have been improving.

Table=Messages&Messages GroupID=2&ThemeID=102&MessageID=100044

5 From

6 From

7 From





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example scenario 2

1 Question 1 (→City E)

1 From City D

Treatment of highly pathogenic influenza

2 From City E

Response

conference room - Microsoft Internet Explorer

ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)

アドレス http://218.45.212.92/forumdemo_dev/forumsource/forummain.cfm

移動

Date of Input '3/9/200X
 Subject Treatment of highly pathogenic avian influenza
 Affiliation/ City City D (hospital)
 Name ○○ ○○ (Medical doctor)
 Readers Column As a patient in our city is suspected to have highly pathogenic avian influenza (H5N1), we would like to ask City E, which has previously treated this disease, to provide us with information on effective treatments. See the attached file for details about the patient in question.

Information on patient =====
 1. Patient ID AB012345
 2. Sex Man
 3. Age 40
 4. Occupation Farmer
 5. Diagnosis name Highly pathogenic avian influenza (H5N1)
 6. Method of Diagnosis RT-PCR method
 7. Estimated Date of Infection 10/8/200X
 8. History of overseas travel
 9. Purpose of overseas travel
 10. Signs and Symptoms

Febrile symptom (39.3°C at peak, 38.3°C at present)
 Cough
 Light myalgia
 Pneumonic symptoms

11. Date of Symptom Onset 13/8/200X
 12. Date of Medical Examination 15/8/200X
 13. Date of diagnosis 20/8/200X
 14. Date of death
 15. Treatment and Effects
 Symptomatic treatment has been administered

16. Estimated Route of Infection
 The patient in question lives in a house neighboring a chicken farm where the highly pathogenic avian influenza virus was detected in chickens last month. The patient appears to have been somehow infected with the virus.
 None of the workers at the chicken farm in question have developed highly pathogenic avian influenza symptoms.

17. Free filling in column
 nothing

Nothing but news reports of the chicken farm in question have developed highly pathogenic avian influenza symptoms.
 17. Free filling in column

JP 一般 CAPS KANA

2 **re** Question 1 (→City D)

City D

Treatment of highly pathogenic influenza

2 **From City E**

Response

1. From

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 ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)
 アドレス(D) http://218.45.212.92/forumsource/forummain.cfm
 リンク ActiveReportsの詳細 HotMailの無料サービス Windows Windows Media リンクの変更
 Norton AntiVirus

Health Crisis-Management Information Network
 for Infectious Disease

Reload Latest order
 Category: Avian influenza / Theme: Treatment of highly pathogenic avian influenza
 new message is registered in this theme

importance: important
Date: 4/9/200X
Recorder Ecity Officer
Title RE:Treatment of highly pathogenic avian influenza
URL
E-MAIL ****@*****

Date of Input 4/9/200X
Subject 're: Treatment of highly pathogenic avian influenza
Affiliation/ City City E (hospital)
Name
Readers Column
 Treatment records at our hospital have been put into an attached file for transmission.
 Specific inquiries should be made to Doctor Y (e-mail address: ****@*****)

Table=Messages&MessagesGroupID=1&ThemeID=104&MessageID=100045

Avian Influenza
 Member Treatment of highly pathogenic avian influenza 3/10/200X
 --[Ecity Officer submitted]-- [member list](#)
 SARS
 Member About the SARS patient identified in City A 3/9/200X
 --[Ecity Officer submitted]-- [member list](#)
 Surveillance System
 AIDS
 nothing
 Others

Specific inquiries should be made to Doctor Y (e-mail address: ****@*****)
Table=Messages&MessagesGroupID=1&ThemeID=104&MessageID=100045

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Thank You Very Much