

# Covid-19 response: information disclosure & risk communication in ROK

: Lesson from 2015 MERS-CoV & 2020 Covid-19

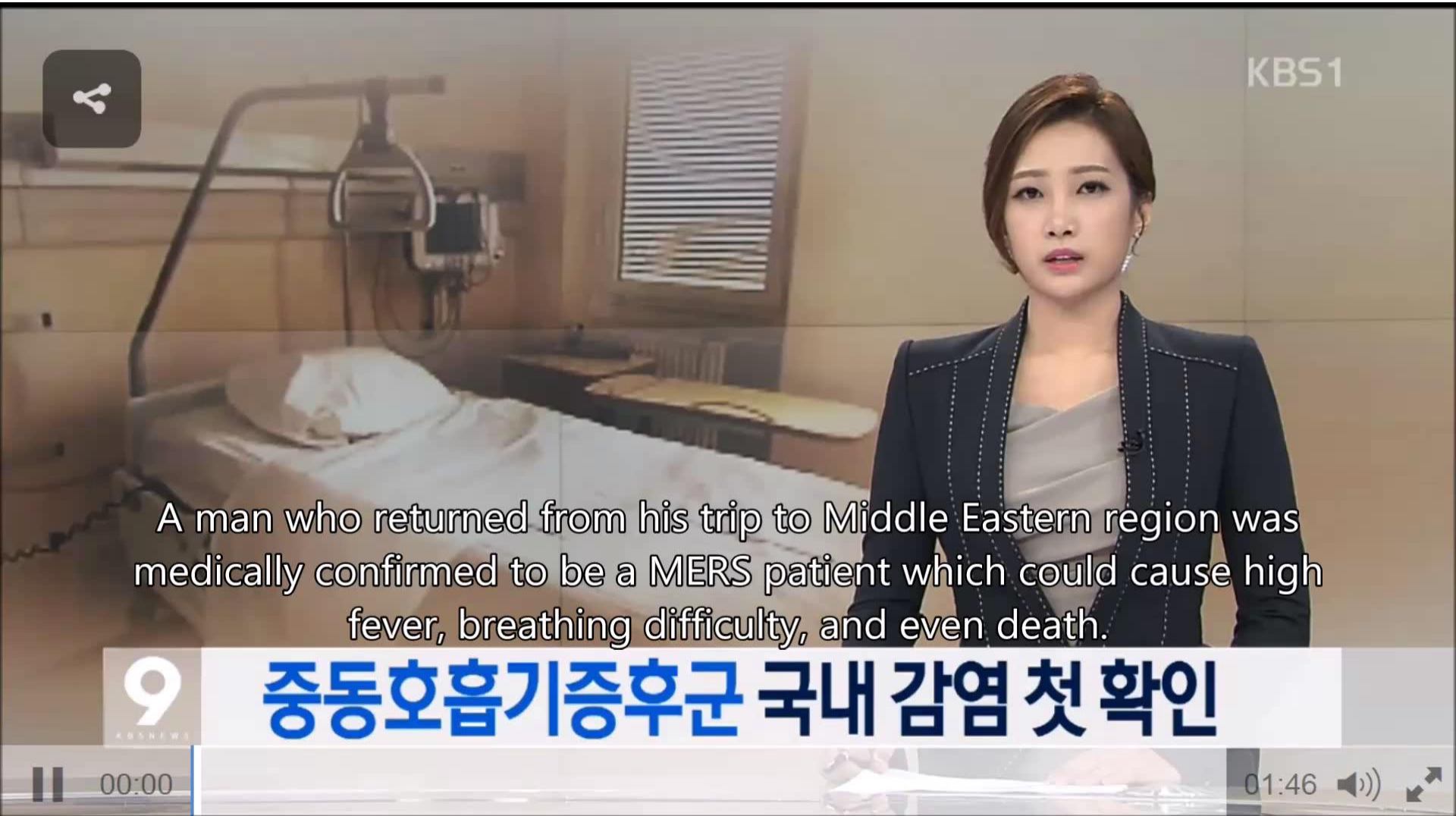
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## Session 2 : COVID-19 사태에 대한 시민사회의 반응 SNU 국가전략위원회 COVID-19 포럼

2020년 5월20일(수), 서울 블루스퀘어 3층 카오스홀

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Ph.d. in public health  
Ph.d. in communication

# First case of MERS in Korea



A man who returned from his trip to Middle Eastern region was medically confirmed to be a MERS patient which could cause high fever, breathing difficulty, and even death.

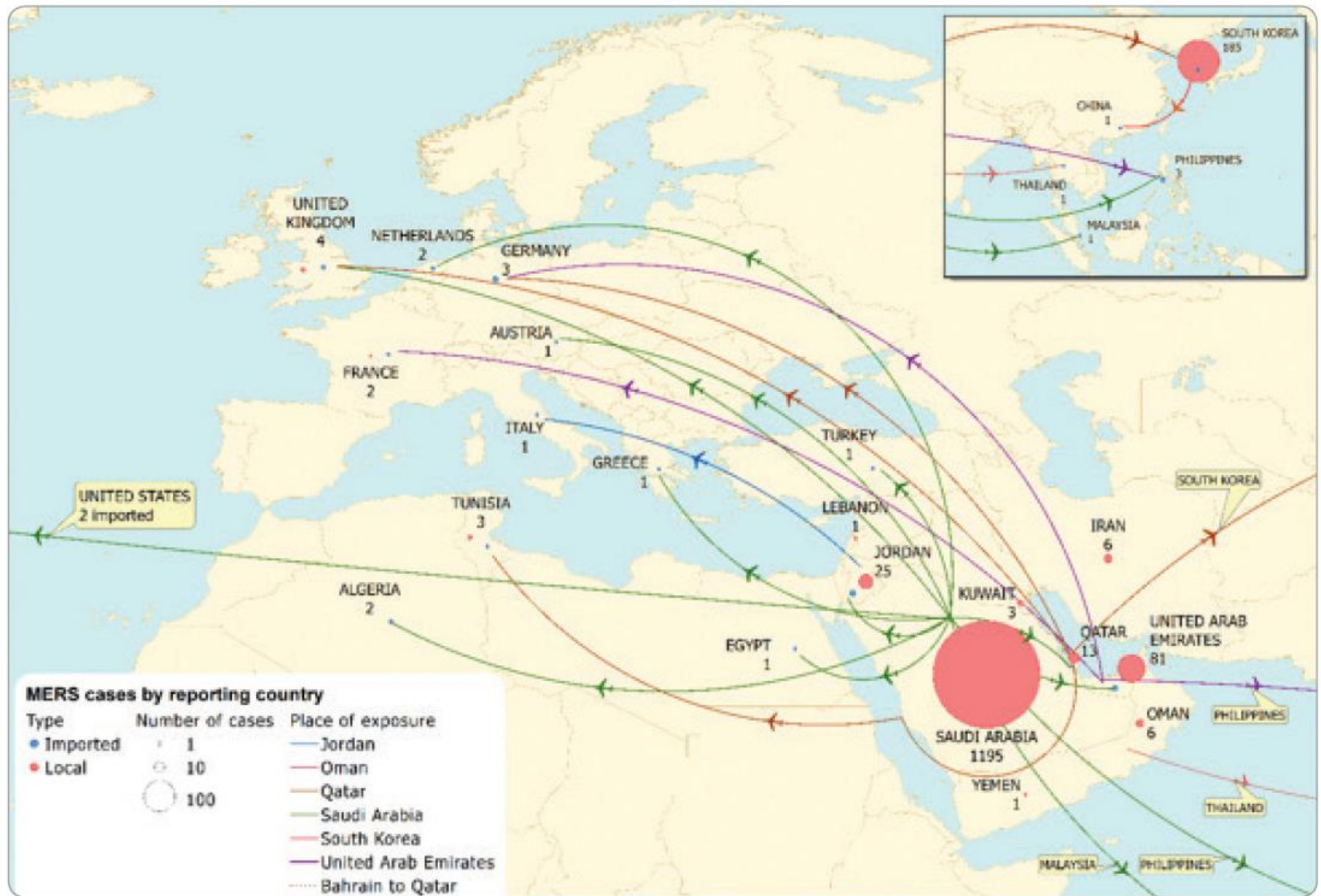
9  
KBS NEWS

**중동호흡기증후군 국내 감염 첫 확인**

00:00

01:46

그림 2-1. 전 세계 메르스 전파 현황



자료 ECDC. (2015). Epidemiological update: Middle East respiratory syndrome coronavirus(MERS CoV), 2015. 9. 2. 인출.

# Failure of information disclosure

## *<As a disease quarantine measure>*

- ✓ Makes our friends fail to avoid the affected places(hospitals, clubs, etc)
- ✓ Makes our neighbors fail to report their symptoms to health authorities

## *<As a psychological/ emotional approach>*

- ✓ Want to know **what, where and Why**
- ✓ Fear, anger, stress, despair, frustration, depression, outrage
- ✓ Rumors start to grow

# Economic Loss in June, 2015 in Seoul/Korea (compared to the previous month)

Revenue Loss  
of Medical Facilities  
(Korea)



20%



Customers of  
Shopping Mall  
(Seoul)



18%



Tourists  
from Overseas  
(Korea)



38%



Passengers  
using public  
transportation  
(Seoul)



12%



<Source : 2017 MERS white paper of Seoul Metropolitan City>

# Realistic risks

**The communication of risk in disease outbreaks is too often neglected; that must change.**

29 July 2015

[PDF](#)[Rights & Permissions](#)

The outbreak of Middle East respiratory syndrome (MERS) in South Korean hospitals is effectively over, with no new cases since 2 July. Since it began on 11 May, a total of just 186 people were infected by the coronavirus, 36 of whom have died. The episode was tragic, but its economic and social impact was disproportionate. If the world is to respond effectively to infectious-disease outbreaks, then the authorities, the media and communities must pay more attention to risk communication.

INTERNATIONAL HEALTH REGULATIONS (2005)

CORE CAPACITY WORKBOOK

**A series of exercises to assist the validation of core capacity implementation levels**

Radiological event I.....	13
Radiological event II.....	14
Questions for facilitators .....	15
Core capacity 1: National legislation, policy and financing .....	15
Core capacity 2: Coordination and NFP communications .....	16
Core capacity 3: Surveillance .....	17
Core capacity 4: Response.....	18
Core capacity 5: Preparedness .....	20
Core capacity 6: Risk communication .....	21
Core capacity 7: Human resources.....	22
Core capacity 8: Laboratory.....	23
Points of entry.....	25

## **Core capacity 6: Risk communication**

*(See Annex 1, p. 42 for a detailed summary of the implementation levels of this core capacity)*

### ***QUESTION***

What risk communication activities should be taking place and what mechanisms should be used to develop and distribute messages? (This is a valid question for each part of any scenario.)

### ***EXPECTED RESPONSES***

Capability level <1: Risk communication partners and stakeholders have been identified.

Capability level 1: A risk communication plan has been developed. Policies, SOPs or guidelines are developed on the clearance and release of information during a public health emergency. A regularly updated platform to disseminate information (e.g. a website) is accessible to the media and the public. Accessible and relevant information, education and communication materials are tailored to the needs of the population.

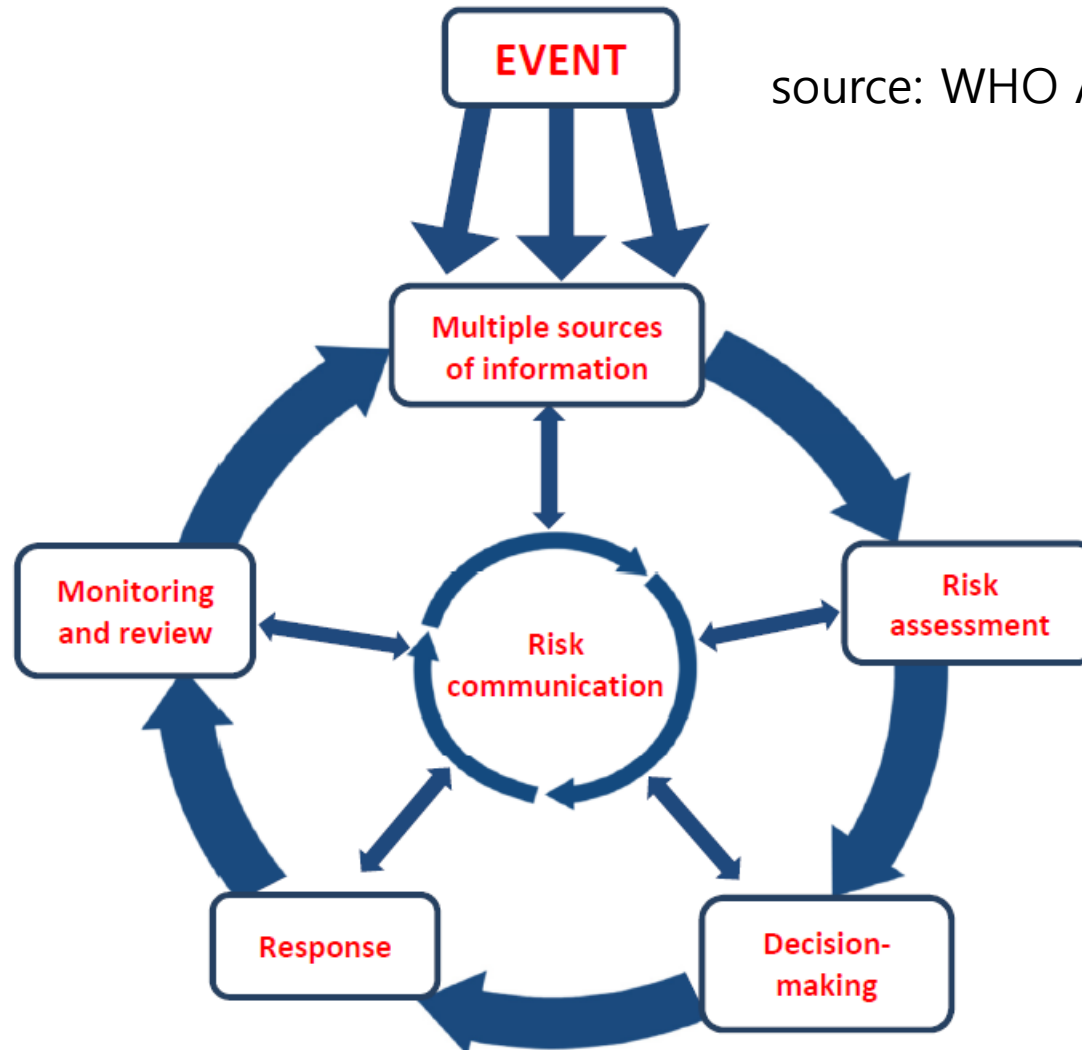
Capability level 2: The risk communication plan has been implemented or tested through an actual emergency or simulation exercise and updated accordingly within the past 12 months. Evaluation of risk communications for timeliness, transparency and appropriateness is conducted after emergencies. In the last three national or international public health emergencies, the population and partners were informed of a real or potential risk within 24 hours of its confirmation.

Capability level 3: Results of evaluations are used to update the risk communication plan and shared with the global community.



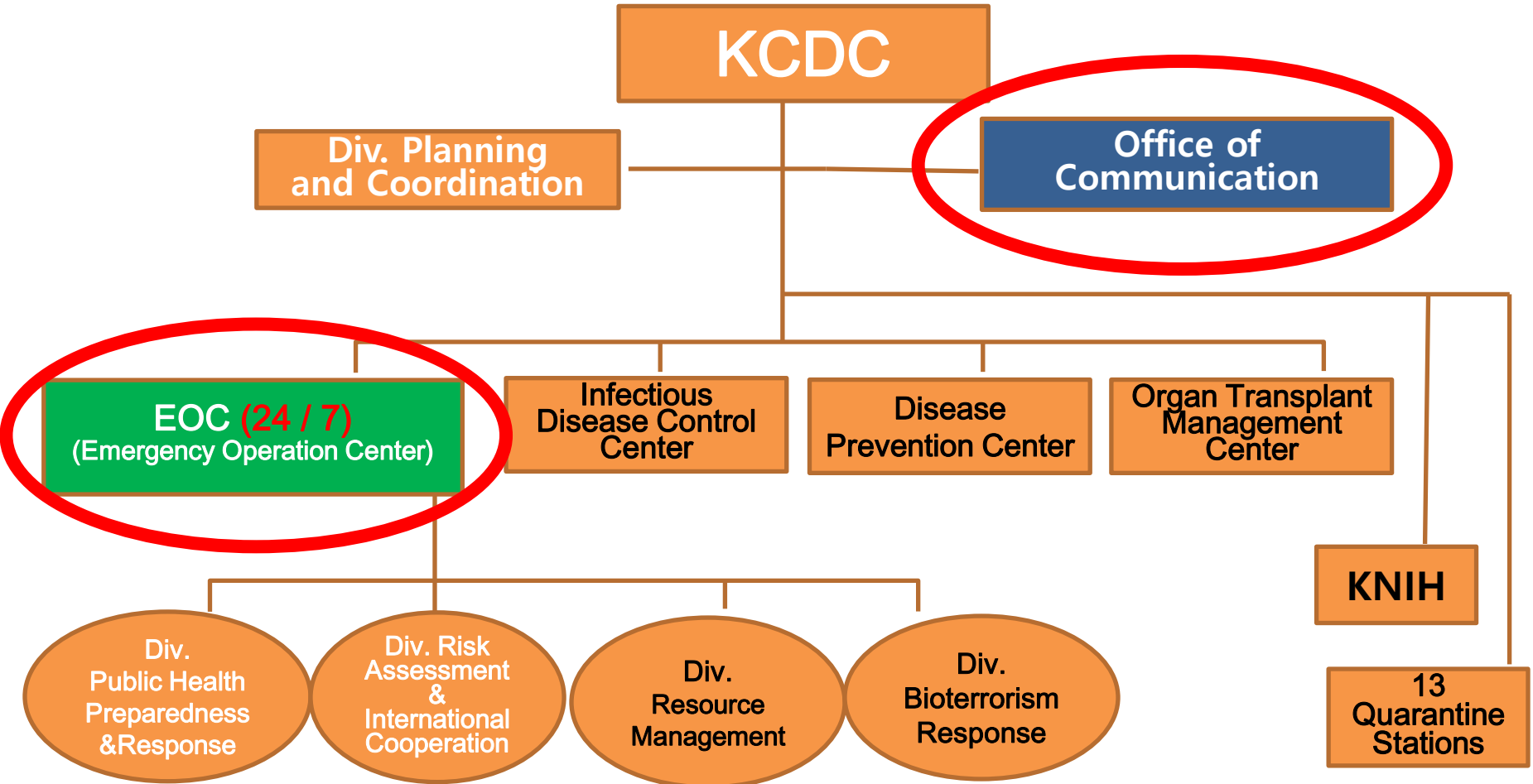
# The Role of Risk Communication in the risk management

Fig. 4. Cycle of surveillance, risk assessment and response



source: WHO APSED III, p 18.

# Changes after MERS since 2016



# 정보공개(information disclosure) 법

<참고1> 감염병 정보공개 관련 법령

감염병의 예방 및 관리에 관한 법률 (약칭: 감염병예방법)

제34조의 2(감염병위험 시 정보공개)

① 보건복지부장관은 국민의 건강에 위해가 되는 감염병 확산 시 감염병 환자의 이동경로, 이동수단, 진료의료기관 및 접촉자 현황 등 국민들이 감염병 예방을 위하여 알아야 하는 정보를 신속히 공개하여야 한다. 다만, 공개된 사항 중 사실과 다르거나 의견이 있는 당사자는 보건복지부장관에게 이의신청을 할 수 있다.

② 제1항에 따른 정보공개에의 범위, 절차 및 방법 등에 관하여 필요한 사항은 보건복지부령으로 정한다. [본조신설 2015.7.6]

감염병의 예방 및 관리에 관한 법률 시행규칙 (약칭: 감염병예방법 시행규칙)

① 제27조의3(감염병위기 시 정보공개 범위 및 절차 등)

감염병에 관하여 「재난 및 안전관리 기본법」 제38조제2항에 따른 주의 이상의 예보 또는 경보가 발령된 후에는 법 제34조의2에 따라 감염병 환자의 이동경로, 이동수단, 진료의료기관 및 접촉자 현황 등을 정보통신망에 게재하거나 보도자료를 배포하는 등의 방법으로 국민에게 공개하여야 한다. [본조신설 2016. 1. 7.]

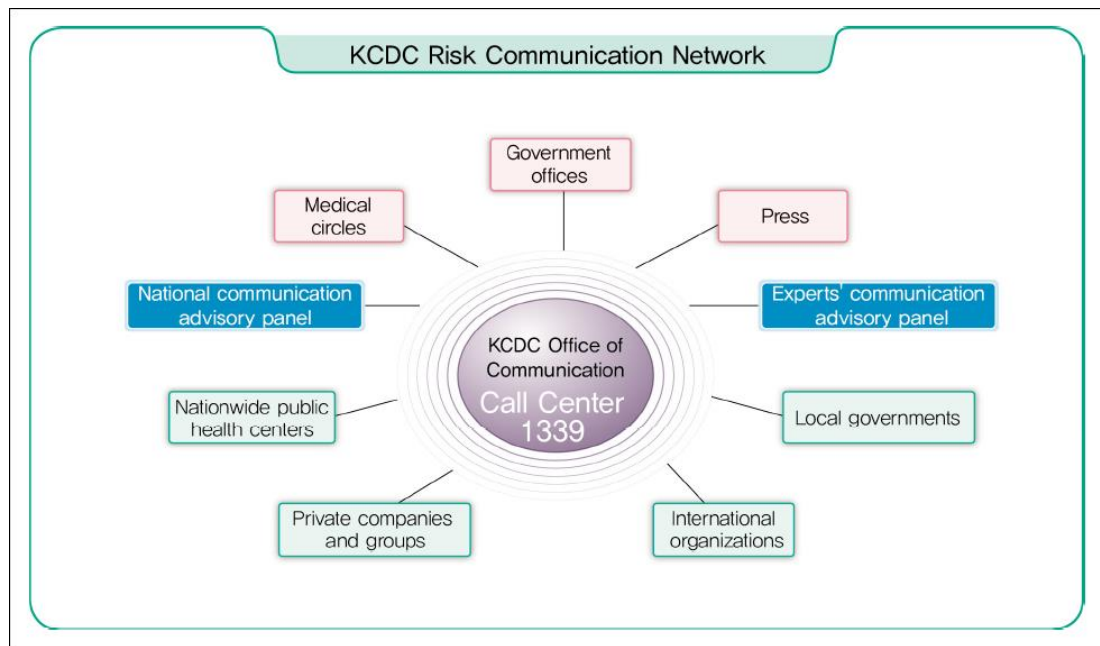
<참고2> 감염병 보도시 기본 항목

- 질병정보 (국내외 발생현황, 병원체, 감염경로, 잠복기, 증상, 진단, 치료, 환자관리, 예방수칙)
- 의심 및 확진환자 현황 (신고건수, 의심환자 건수, 확진환자 건수)
- 확진 환자 관련 (환자의 이동경로, 이동수단, 진료의료기관, 접촉자 현황 등)
- 국민행동요령 및 정부의 대책, 감염병 확산방지 및 피해최소화 위한 지역사회와 국민참여 등

# Risk Communication Guideline for Public Health Emergencies

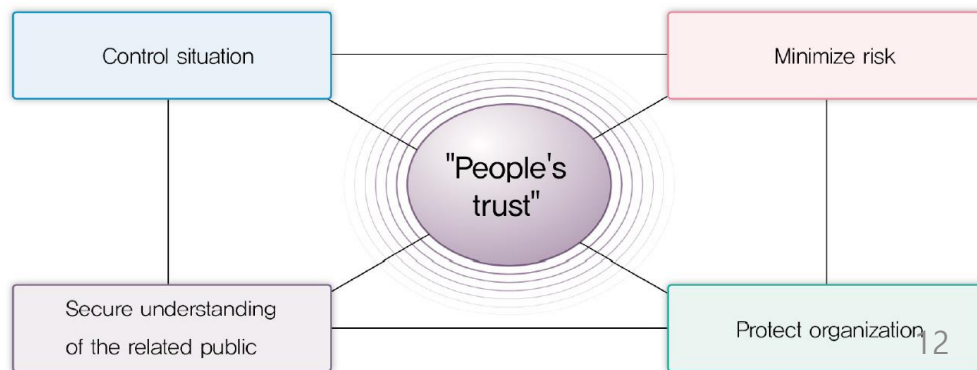


Korea Centers for Disease Control & Prevention



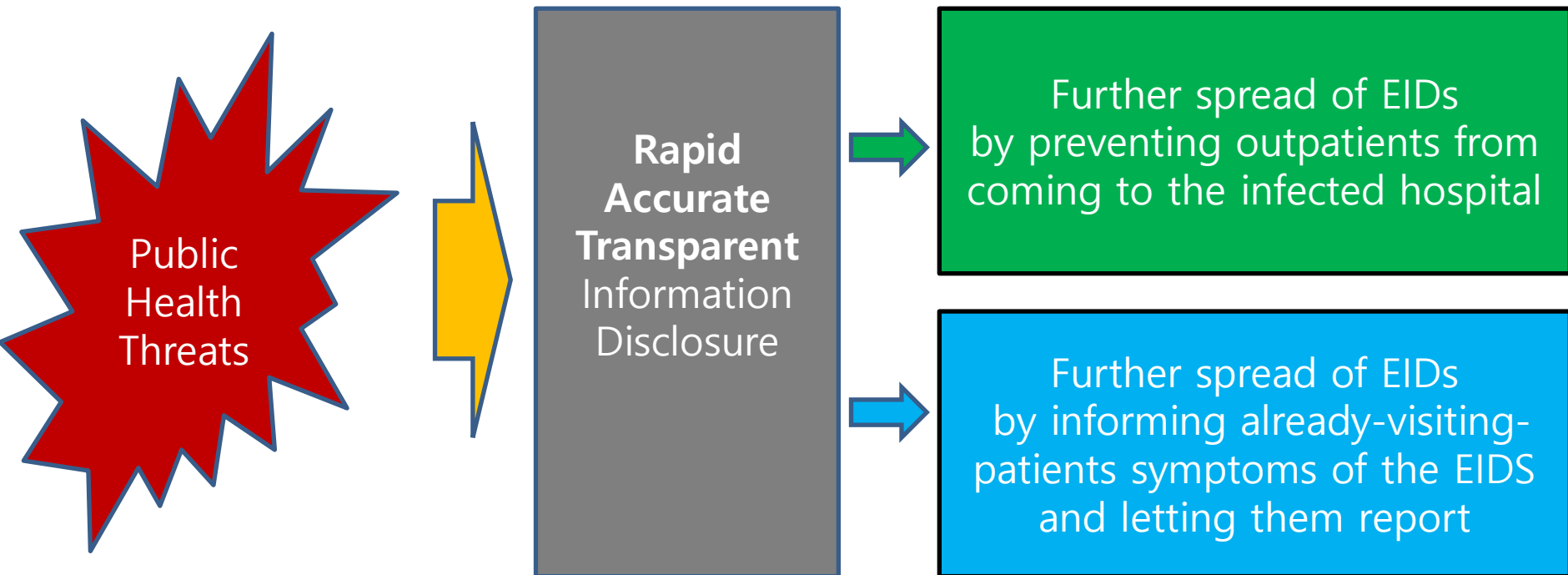
### 1.3. Objectives of Risk Communication for Public Health Emergencies

To respond to risk appropriately so as to prevent or minimize negative outcomes, and thus to protect the public, stakeholders and the organization from damages of the risk.

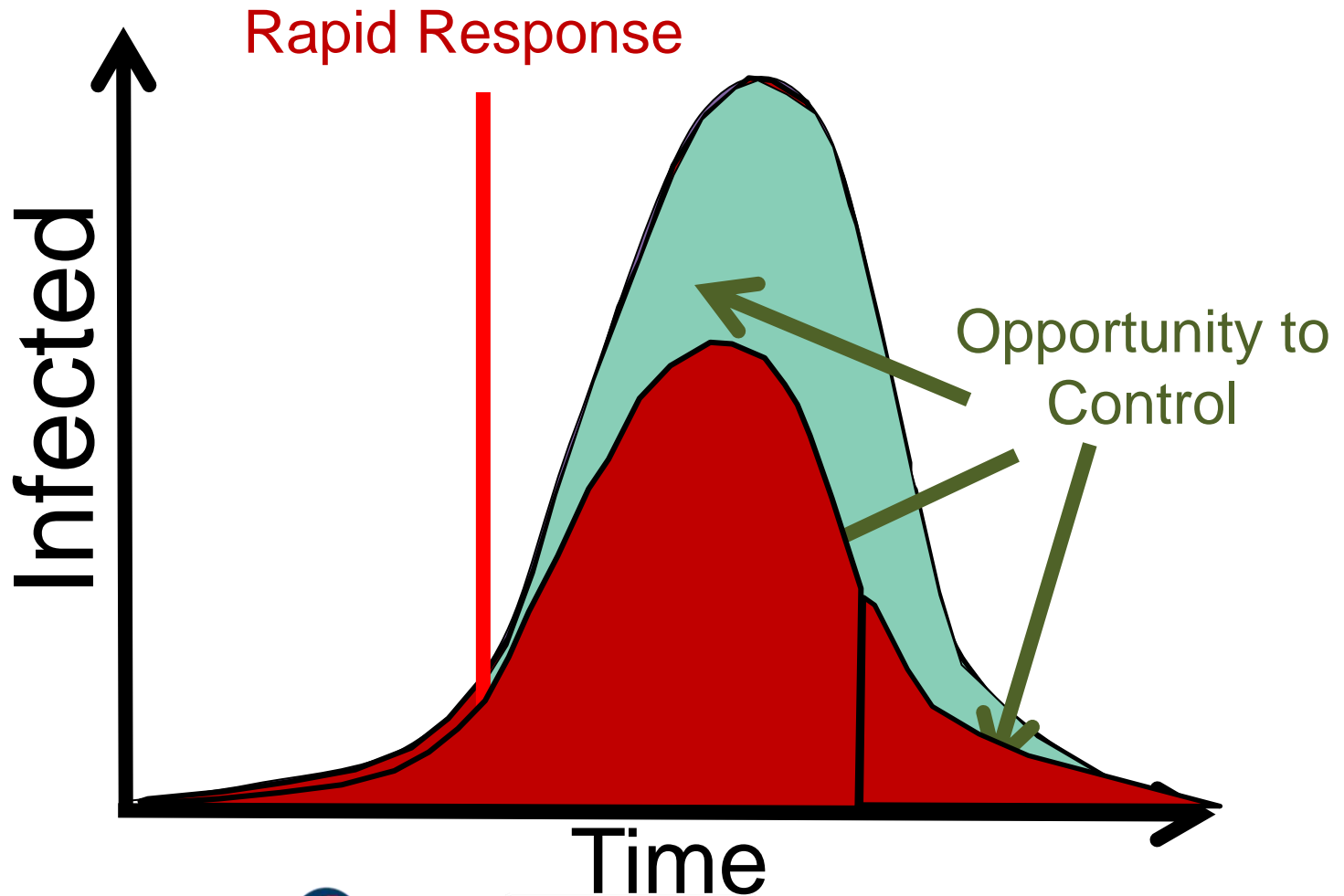


# Effects of Proper Information Disclosure

## 정보공개에의 역학적 의미



# Communications and the Epi Curve



KCDC  
05/06/2017  
Korea Centers for Disease  
Control & Prevention

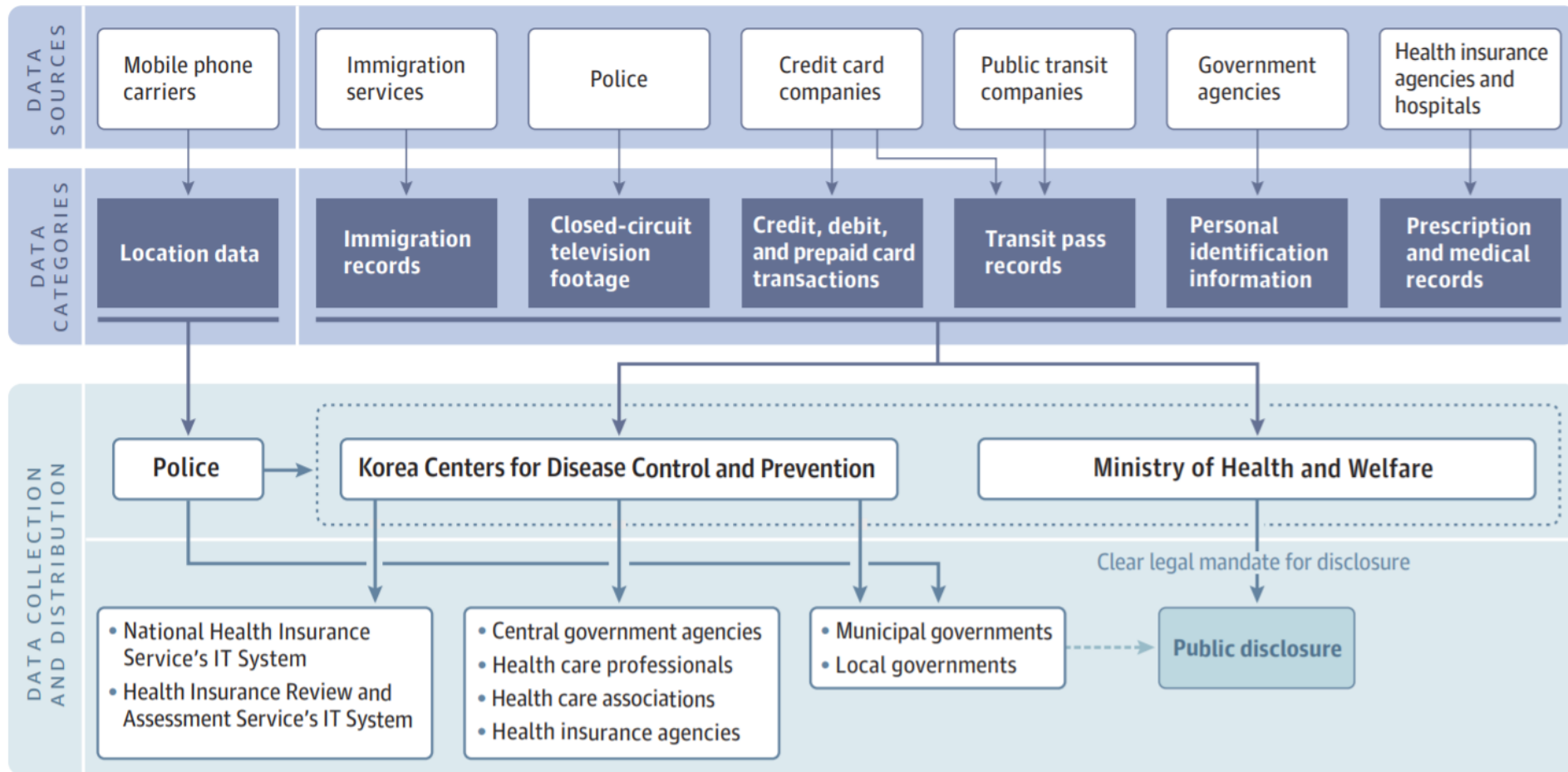
THE **WARNING**  
PROJECT



ASIA-EUROPE  
FOUNDATION

# How to do contact tracing in ROK

Figure. Coronavirus Disease 2019 Contact Tracing in Korea: Sources, Categories, Collection, and Distribution of Data



자료: JAMA(2020), Information Technology-based Tracing Strategy in Response to Covid-19 in Korea

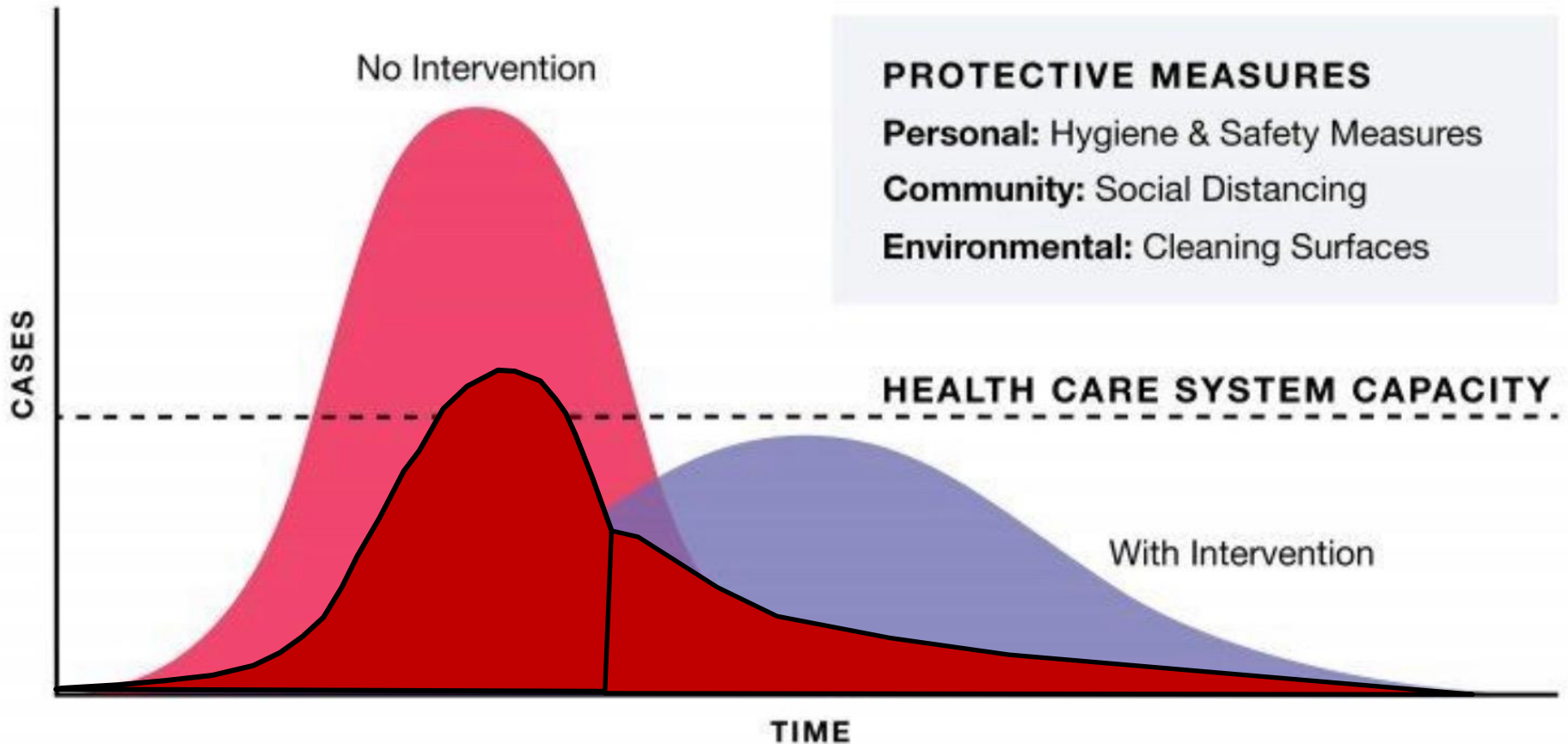
An image from one of the South Korean sites made by private developers, using government data available online, to track the whereabouts of coronavirus patients. (Courtesy of coronamap.site)



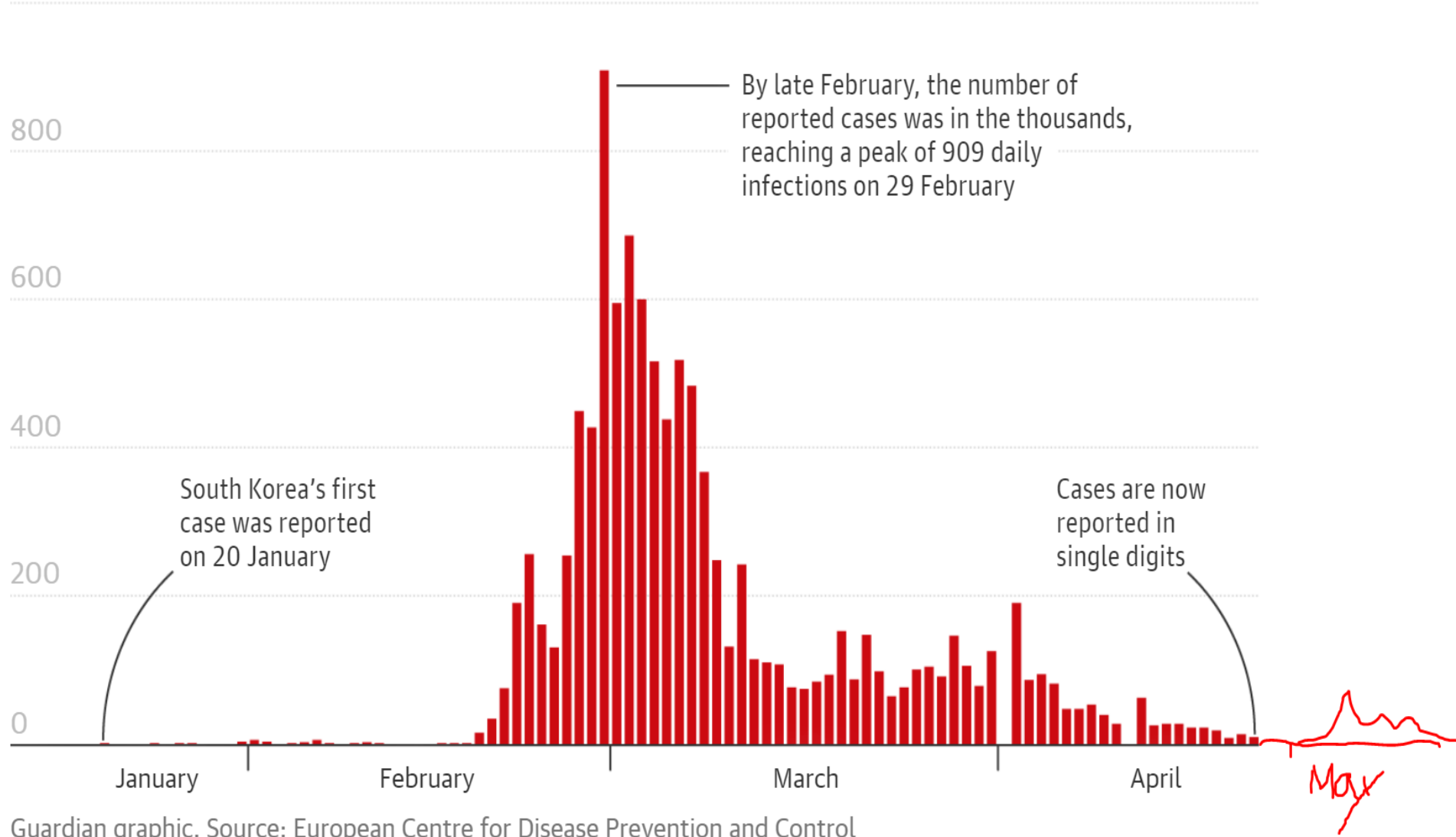


# Flatten the Curve

Collective action can limit the rise of new COVID-19 infections and help hospitals manage increased demand for care.



1,000 new cases per day



Guardian graphic. Source: European Centre for Disease Prevention and Control



NEWS · 18 MARCH 2020

# South Korea is reporting intimate details of COVID-19 cases: has it helped?

Extensive contact tracing has slowed viral spread, but some say publicizing people's movements raises privacy concerns.

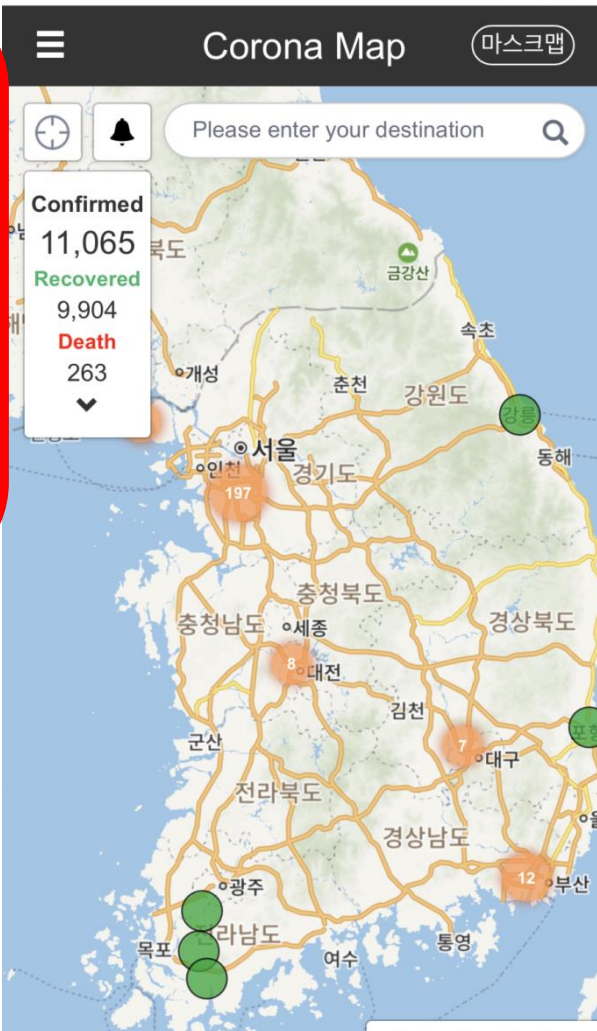
Mark Zastrow



## Public trust

The South Korean government says the public is more likely to trust it if it releases transparent and accurate information about the virus, including travel histories of confirmed patients. Laws passed since the country's last major disease outbreak, of Middle East respiratory syndrome (MERS) in 2015, now specifically allow authorities to publish this information.

Numerous websites and smartphone apps have also sprung up to collect and map the data, such as [coronamap.site](https://coronamap.site). Checking the maps has become part of daily life for many South Koreans.

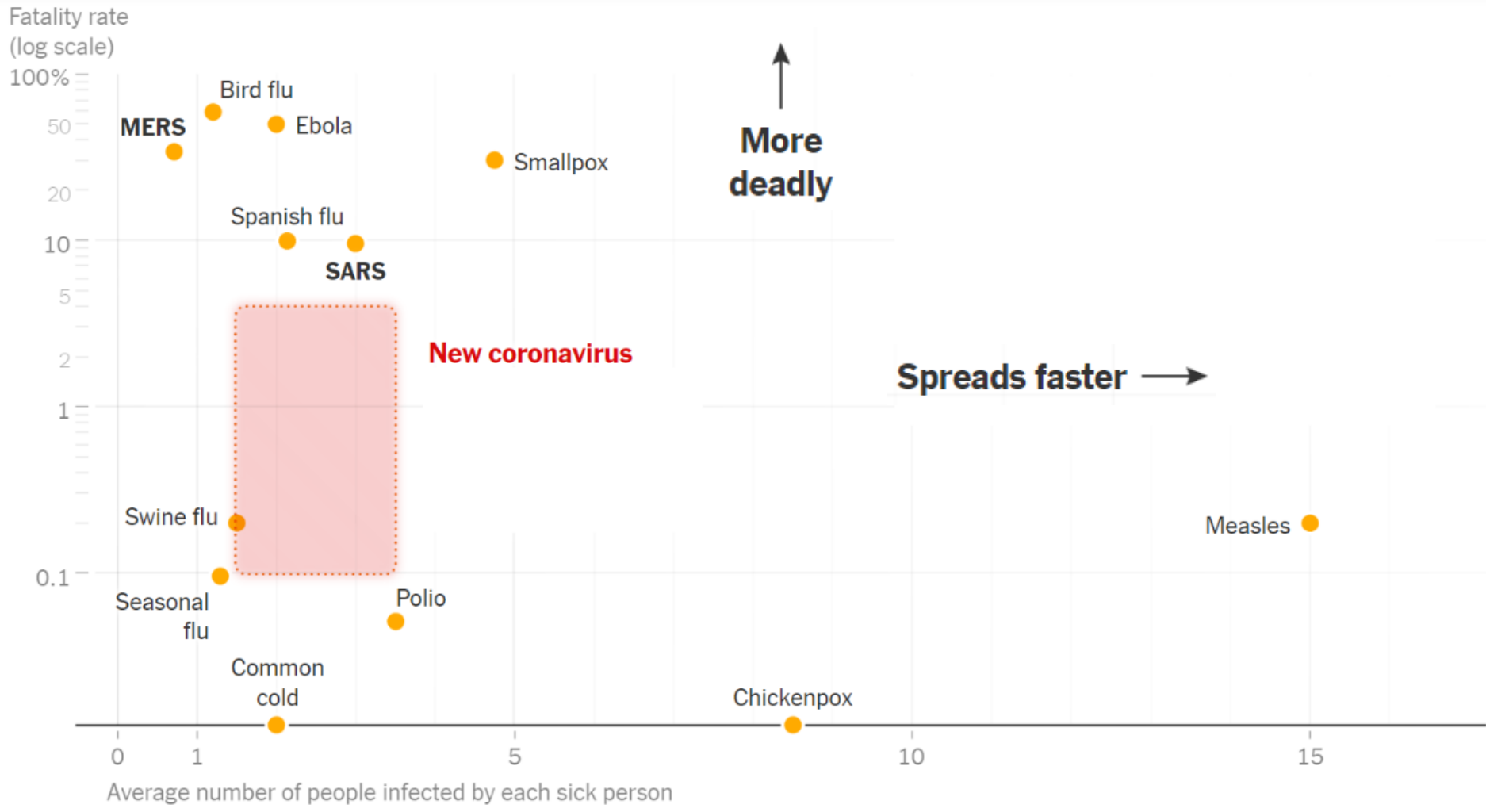


### RELATED



What China's coronavirus response can teach the rest of the world

Experts and the World Health Organization say that South Korea's extensive tracing, testing and isolation



What is the role  
of information  
disclosure  
To reduce  $R_0$  ?

## Basic reproductive rate ( $R_0$ )

Basic formula for the actual value:  $R_0 = \beta * \kappa * D$

- $\beta$  - risk of transmission per contact (i.e. attack rate)
  - Condoms, face masks, hand washing  $\rightarrow \beta \downarrow$
- $\kappa$  - average number of contacts per time unit
  - Isolation, closing schools, public campaigns  $\rightarrow \kappa \downarrow$
- $D$  - duration of infectiousness measured by the same time units as  $\kappa$ 
  - Specific for an infectious disease
  - Early diagnosis and treatment, screening, contact tracing  $\rightarrow D \downarrow$

[표 4] 사망원인 순위 추이, 2008-2018

(단위: 인구 10만 명당 명, 명, %)

순위	2008년		2017년		2018년					
	사망원인	사망률	사망원인	사망률	사망원인	사망자수	구성비	사망률	'08 순위 대비	'17 순위 대비
1	악성신생물	139.5	악성신생물	153.9	악성신생물	79,153	26.5	154.3	-	-
2	뇌혈관 질환	56.5	심장 질환	60.2	심장 질환	32,004	10.7	62.4	↑ +1	-
3	심장 질환	43.4	뇌혈관 질환	44.4	폐렴	23,280	7.8	45.4	↑ +6	↑ +1
4	고의적 자해 (자살)	26.0	폐렴	37.8	뇌혈관 질환	22,940	7.7	44.7	↓ -2	↓ -1
5	당뇨병	20.7	고의적 자해 (자살)	24.3	고의적 자해 (자살)	13,670	4.6	26.6	↓ -1	-
6	만성 하기도 질환	14.9	당뇨병	17.9	당뇨병	8,789	2.9	17.1	↓ -1	-
7	운수 사고	14.7	간 질환	13.3	간 질환	6,858	2.3	13.4	↑ +1	-
8	간 질환	14.5	만성 하기도 질환	13.2	만성 하기도 질환	6,608	2.2	12.9	↓ -2	-
9	폐렴	11.1	고혈압성 질환	11.3	알츠하이머병	6,157	2.1	12.0	↑ +4	↑ +2
10	고혈압성 질환	9.6	운수 사고	9.8	고혈압성 질환	6,065	2.0	11.8	-	↓ -1

군	감염병명	2013	2014	2015	2016	2017	2018
제 1 군	장티푸스	0	1	0	0	0	0
	장출혈성대장균감염증	1	0	0	0	0	3
	A형간염	1	0	1	2	3	2
제 2 군	파상풍	1	0	0	2	0	2
	풍진	0	0	0	0	0	0
	B형간염(급성)	1	1	0	0	1	2
	일본뇌염	3	4	2	3	2	1
	수두	0	0	0	0	0	1
	폐렴구균	-	6	34	18	67	115
제 3 군	말라리아	2	5	0	1	3	4
	수막구균성수막염	0	0	1	0	1	1
	레지오넬라증	0	0	1	8	17	22
	비브리오패혈증	31	40	13	12	24	20
	쯔쯔가무시증	23	13	11	13	18	5
	신증후군출혈열	7	3	7	3	0	0
	매독(선천성)	0	0	0	0	0	0
	크로이츠펬트-야콥병(CJD)	4	3	0	6	5	11
	C형간염	-	-	-	-	0	5
	카피페넨내성장내세균속군종(CRE) 감염증	-	-	-	-	37	143
	결핵	2,230	2,305	2,209	2,186	1,816	2000(추정)
	후천성면역결핍증(AIDS)	139	128	131	125	128	132
	제 4 군	큐열	0	0	0	0	1
라임병		0	0	1	0	0	0
유비저		1	0	0	0	0	0
중증열성혈소판감소증후군		17	16	21	19	54	46
중동호흡기증후군(MERS)		-	-	38	0	0	0

# Conclusion and discussions

- Publicize information swiftly, accurately, and transparently,
- **Narrow the gap between the real(objective) risk and the perceived(subjective) risk in PHEs**
- Help people make the informed decision at each individual's own circumstance comparing other risks around us
- **Minimize the socio-economic loss of the society and the lives of the public**
- No one is left behind... the vulnerable
- **human & ecosystem balance... Health for all**
- **Planetary health perspective & beyond**