

**2023 Global Health and Welfare Forum in Taiwan**

**Parallel Session 1**

**Global Health Security: To Build Sustainable Preparedness for  
and Response to the Next Pandemic**

**The Experiences of COVID-19 and Future  
Challenges for Infectious Disease Control  
in Japan**



**Nobuhiko OKABE, MD, PhD**

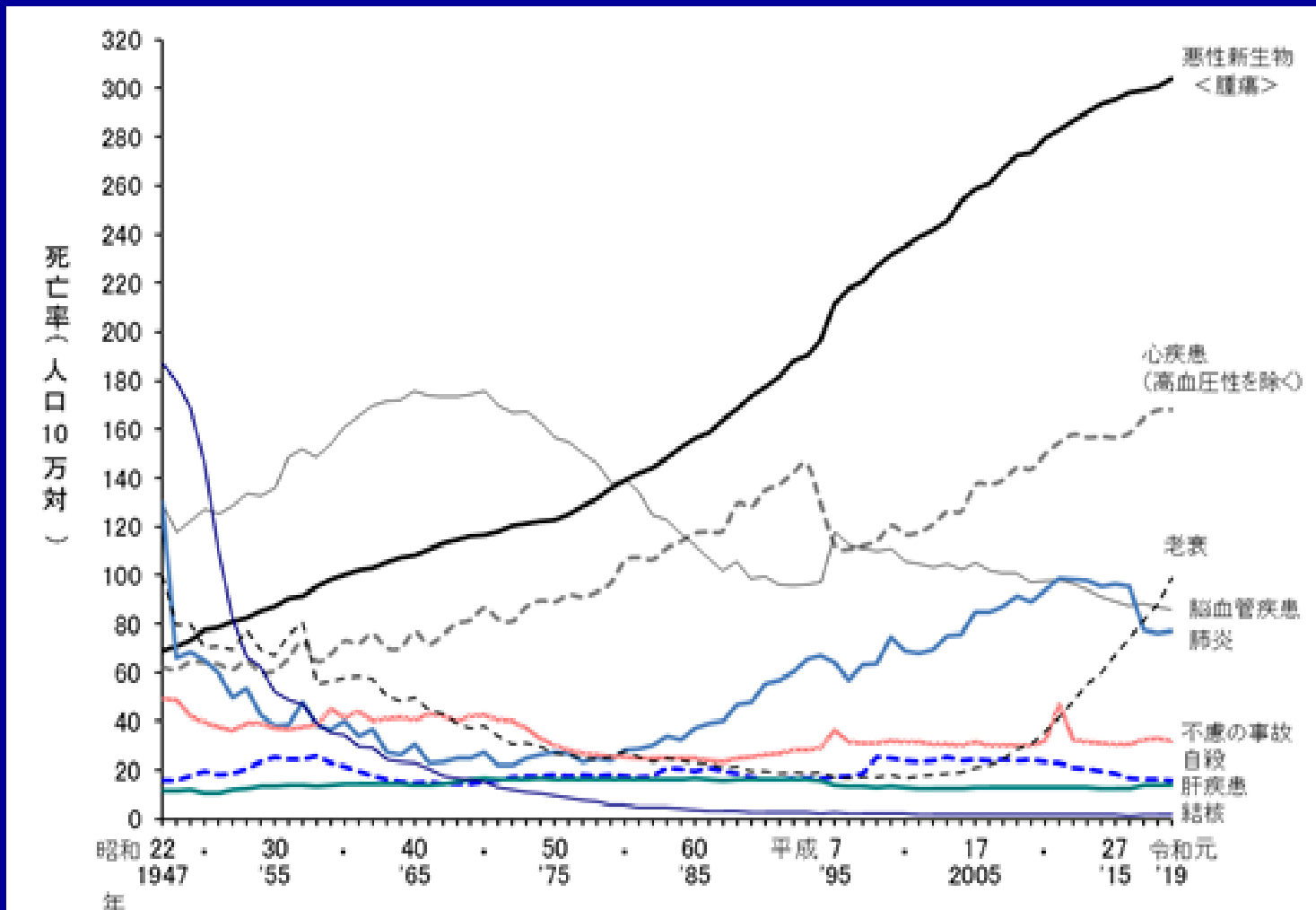
**Kawasaki City Public Health Institute for Public Health**

**Kanagawa, Japan**

**7 Nov 2023**



# Mortality rate (per 100 thousands population) 1947~2019 in Japan



**Malignancy**

**Cardiovascular dis.**

**Old age**

**Brain vascular dis.**

**Pneumonia**

**Accident**

**Suicide**

**Hepatic dis.**

**TB**

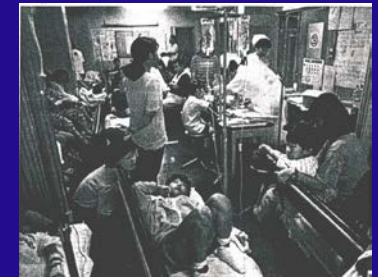
# Infectious diseases control law

Become effective on April 1, 1999



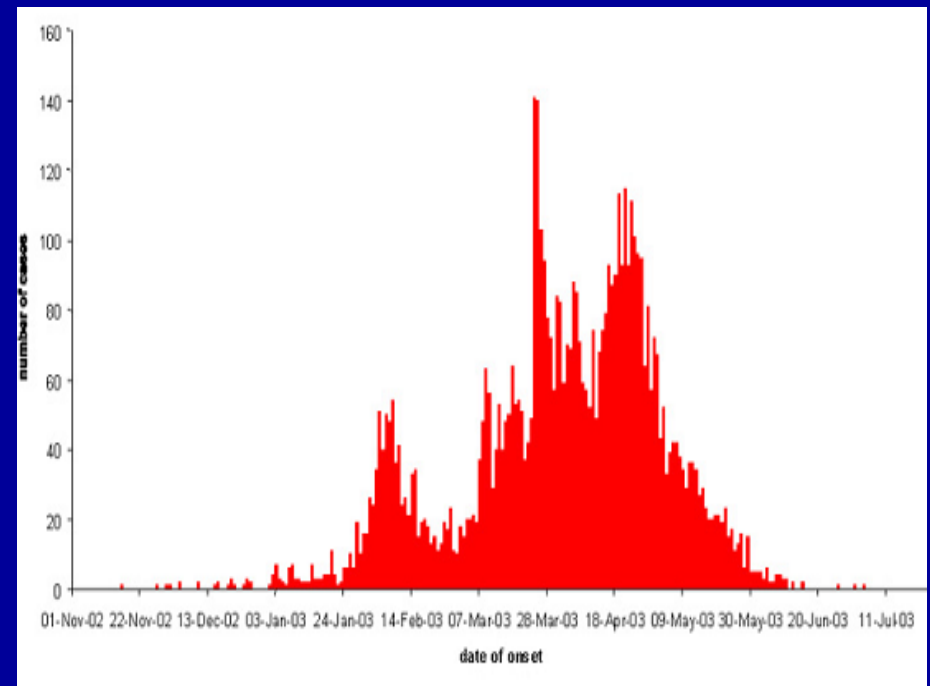
## Direction of the new law-1

- Strengthen the preparedness**
- New surveillance system**
- Equip with basic guidelines for comprehensive
- promotion of infectious disease prevention
- Formulation of diseases specific control guide line
- Promotion of international cooperation



# 2001.9.11 米国同時多発テロ

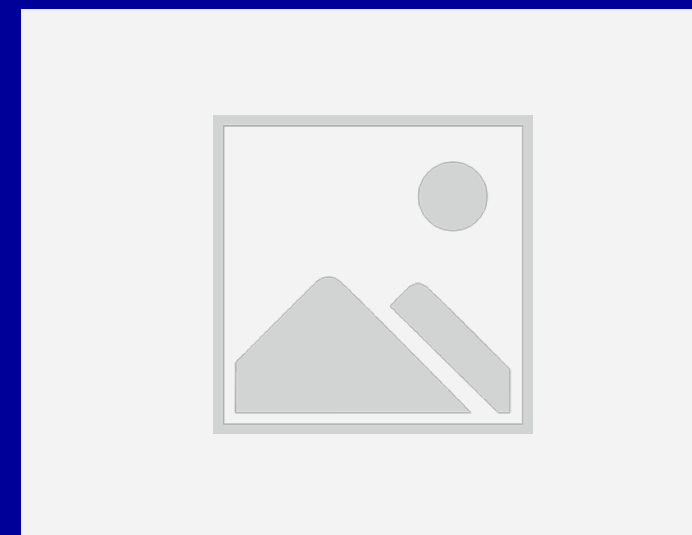
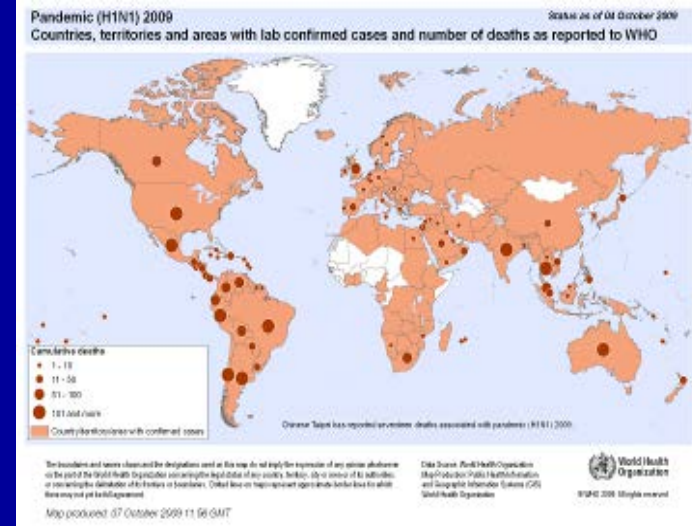
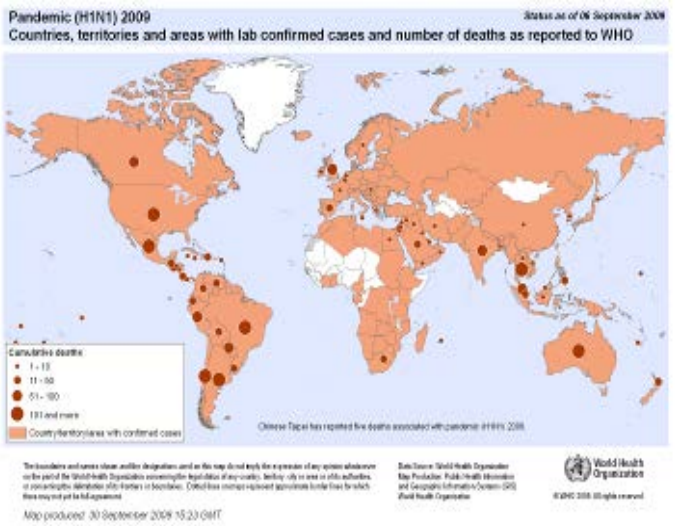
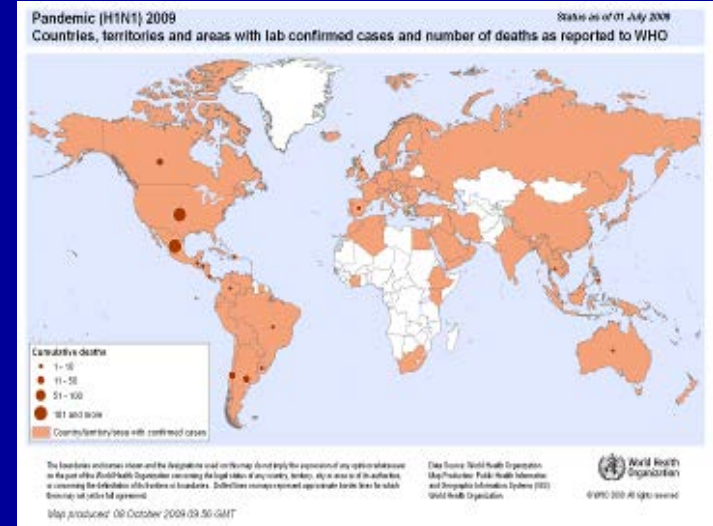
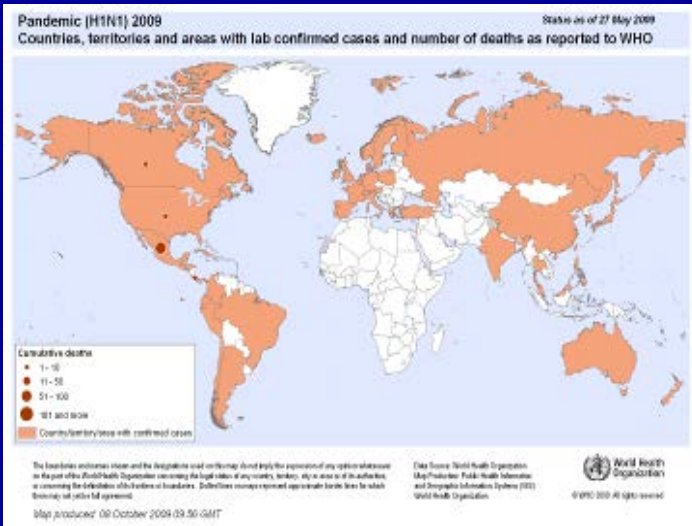
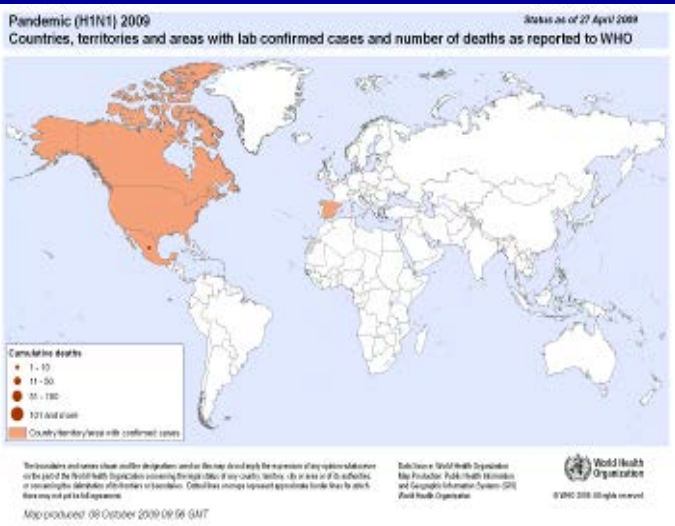
## 2002~2003 SARS



# **Infectious Dis Control Law; enacted at 2003**

- **Strengthening measures against serious infectious diseases (Strengthening the role of the country)**
- **Flexible implementation of active surveillance.**
- **Emergency response**
- **Coordination when wide area response is required.**
- **Strengthening measures against zoonotic diseases.**

# Influenza Pandemic H1N1 2009 2009.4.-12.



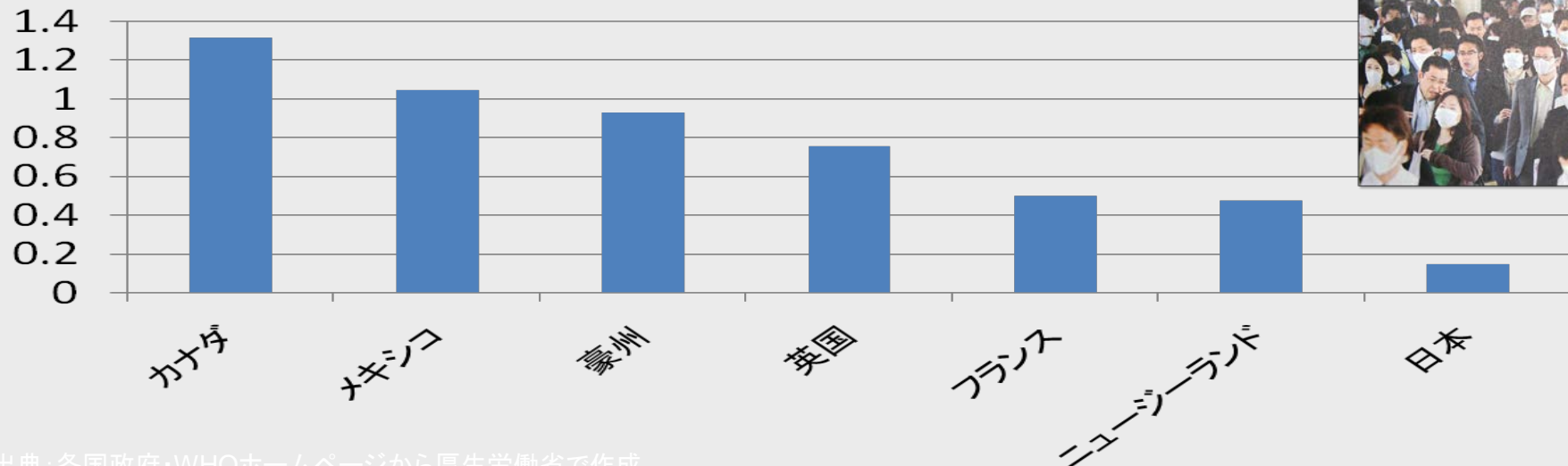
# Mortality rate among 100t population on Pandeic Influenza 2009

	米国	カナダ	メキシコ	豪州	英国	フランス	NZ	日本
集計日	2/13	3/13	3/12	3/12	3/14	3/16	3/21	3/23
死亡数	推計 12,000	429	1,111	191	457	309	20	198
人口10万対 死亡率	(3.96)	1.32	1.05	0.93	0.76	0.50	0.48	<b>0.16</b>

※尚、各国の死亡数に関してはそれぞれ定義が異なり、一義的に比較対象とならないことに留意が必要。

Canada Mexico AUS UK France NZ Japan

死亡率



# **The Report on Pandemic Influenza. By Countermeasures General Meeting 2010.6.**

**Recommend to introduce:**

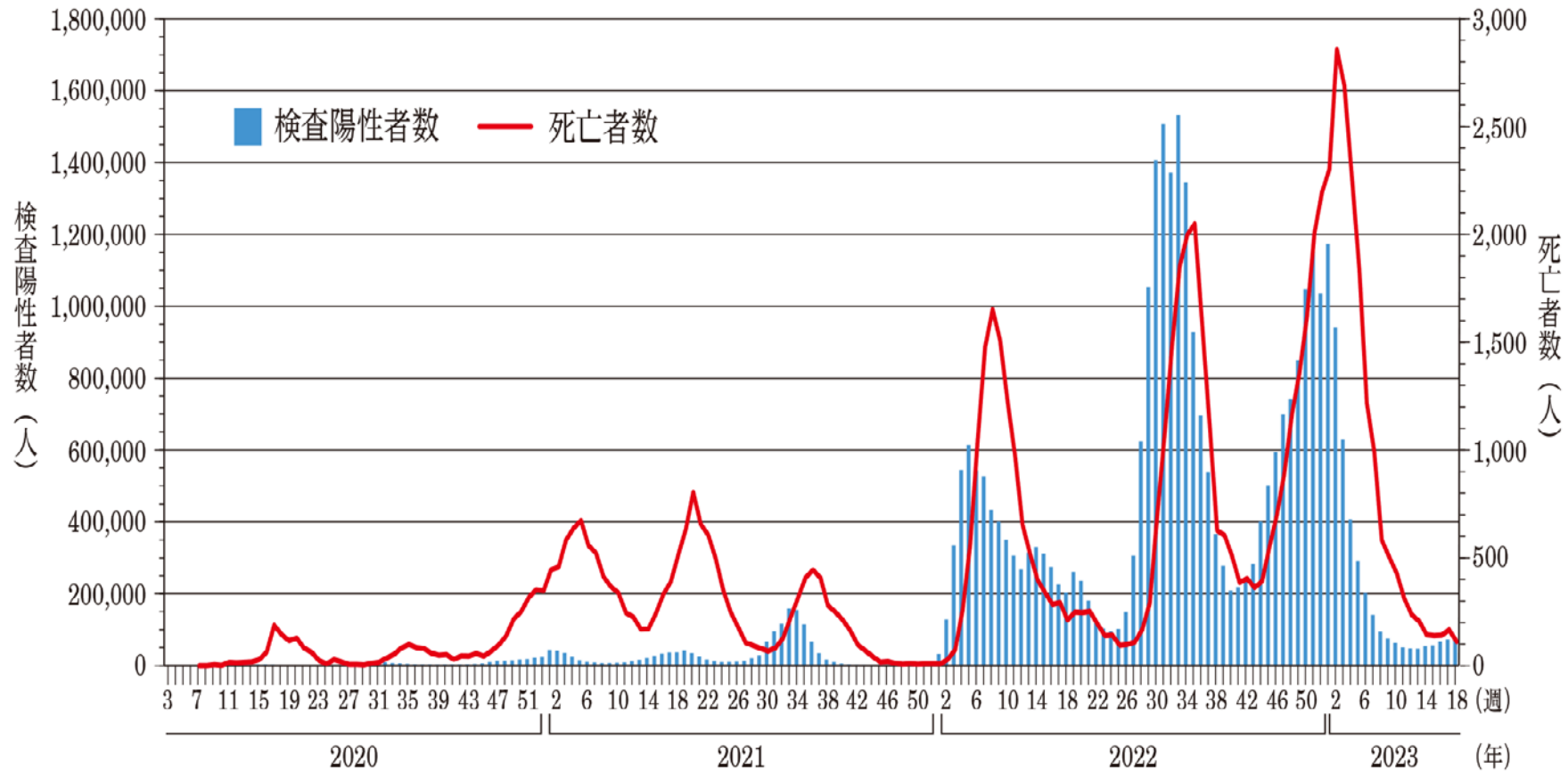
- **Flexible response depending on pathogenicity, etc**
- **Rapid and rational decision-making system**
- **Relationship with local areas and advance preparations**
- **Strengthening systems related to infectious disease crisis management**
- **Legal development]**

**These recommendations were very appropriate if it is implemented.**



# COVID-19 Confirmed cases in Japan 2020.3w~2023.18w

図1. COVID-19週別検査陽性者数と死亡者数の推移, 2020年第3週~2023年第18週



厚生労働省オープンデータ (<https://www.mhlw.go.jp/stf/covid-19/open-data.html>) の陽性者数、死亡者数を基に作成 (2023年5月9日アクセス)、データの集計方法はオープンデータに記載の通り



- **Non-pharmaceutical Intervention**

**Avoid the three C's**

**Mask, Hand hygiene**

**Social distance**

**State emergency, spread prevention measures**



- **Pharmaceutical Intervention**

**Drugs, vaccines**

# The number of confirmed cases, fatal cases and case fatality rate in Japan

	<b>confirmed cases</b>	<b>fatal cases</b>	<b>CFR</b>
<b>2020</b>	<b>234,109</b>	<b>3,459</b>	<b>1.48%</b>
<b>2021</b>	<b>1,492,874</b>	<b>14,926</b>	<b>1.00%</b>
<b>2022</b>	<b>27,225,973</b>	<b>38,881</b>	<b>0.14%</b>
<b>2023</b>	<b>4,573,857</b>	<b>17,390</b>	<b>0.38%</b>

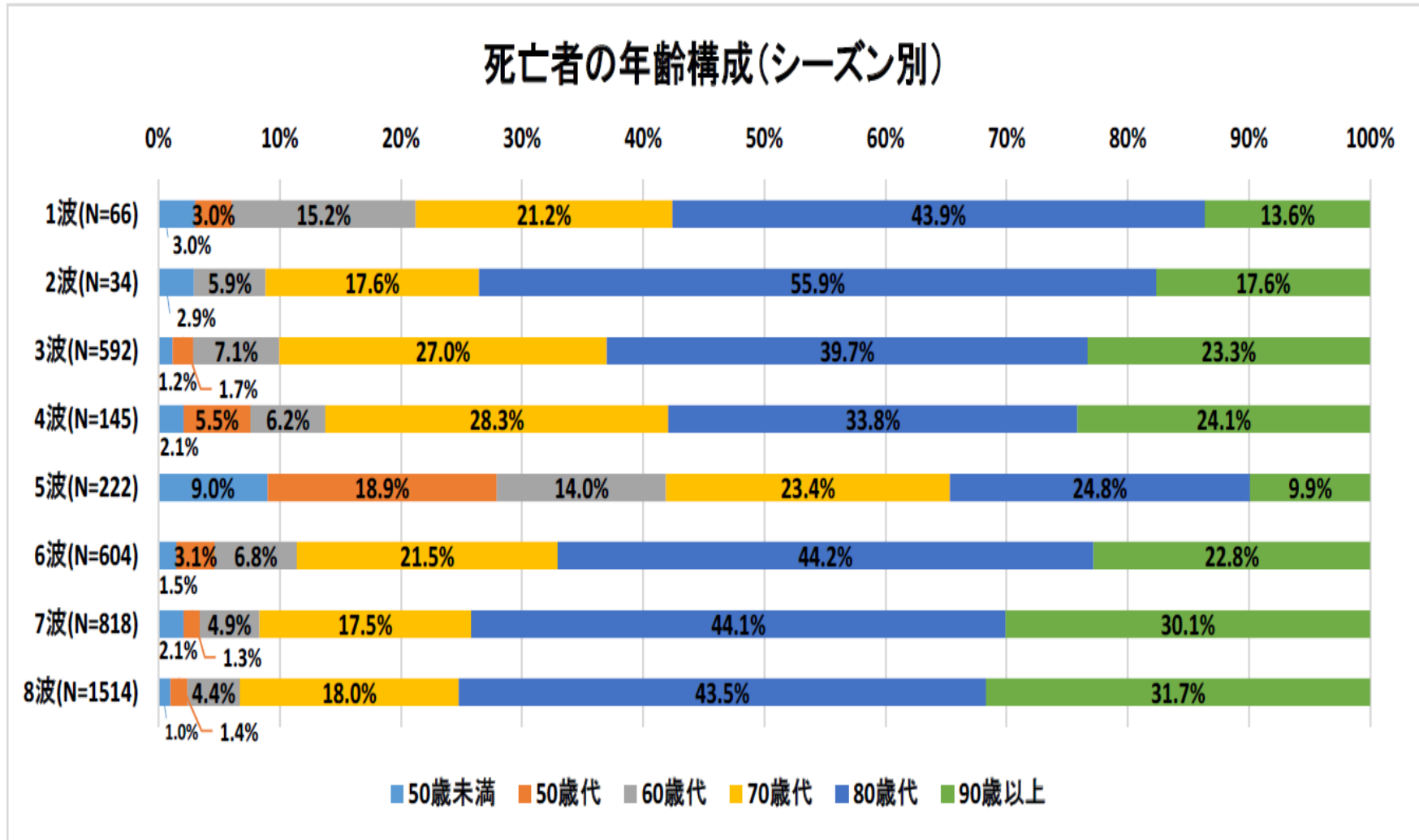
(~5.7)

## Seasonal Influenza

**estimated case number: several million to ten and several million in one season. estimated CFR: 0.05~0.006%**

# Age distribution of fatal cases divided by each waves (1~8) Saitama Pref.

5/29集計



# Pandemic Response Strategy

## A. 封じ込め (Containment)

Zero strategy

Ex: China

## B. 感染抑制 (Suppression) ←Japan

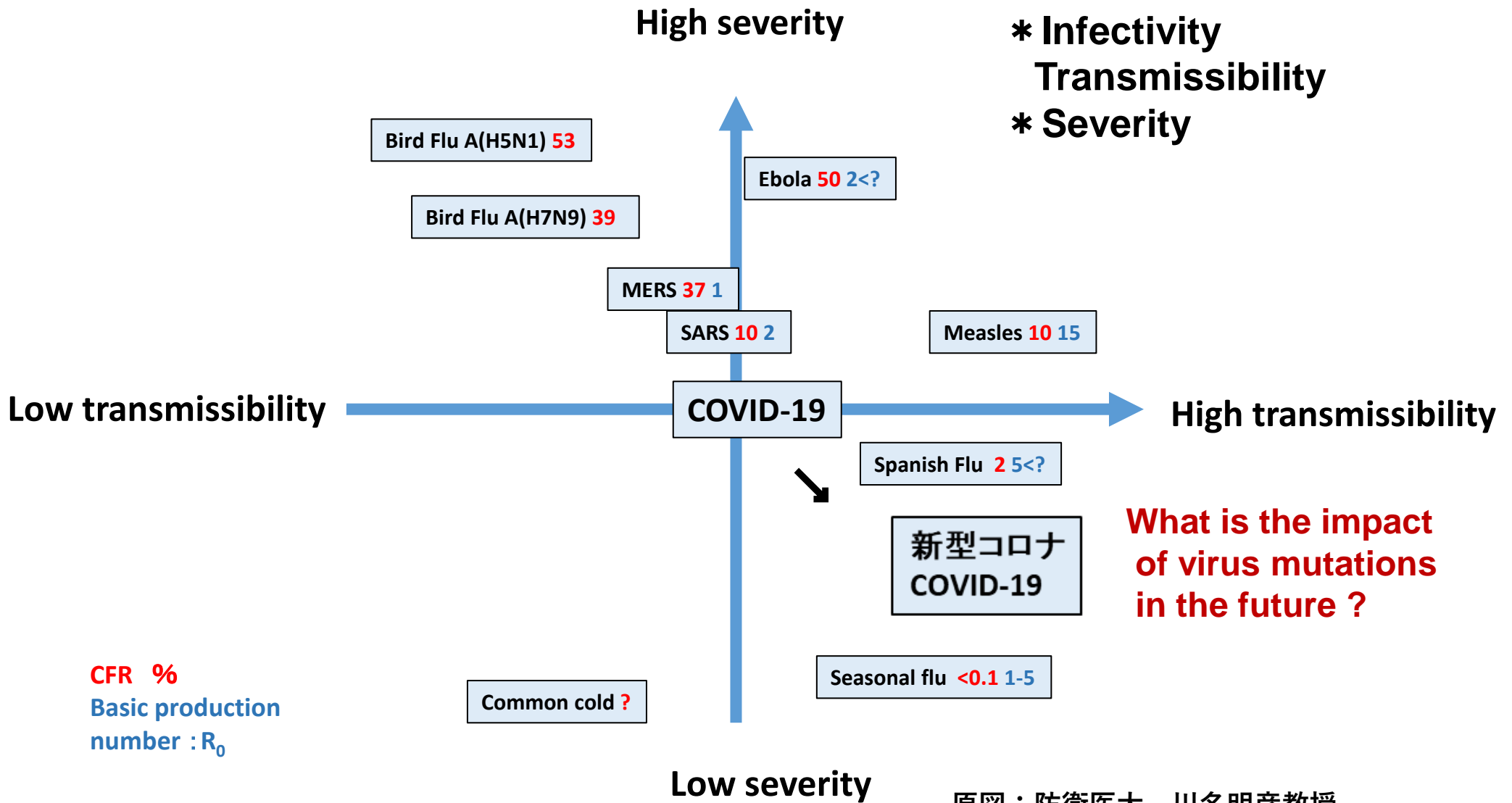
- Suppress the number of infected people and keep the number of deaths below a certain number
- Reduce the number of deaths by one person

## C. 被害抑制(Mitigation)

- Focus on the treatment system for seriously ill patients without focusing on the number of infected people
  - Ex: Sweden

Medical Burden      Socio-Economic activities

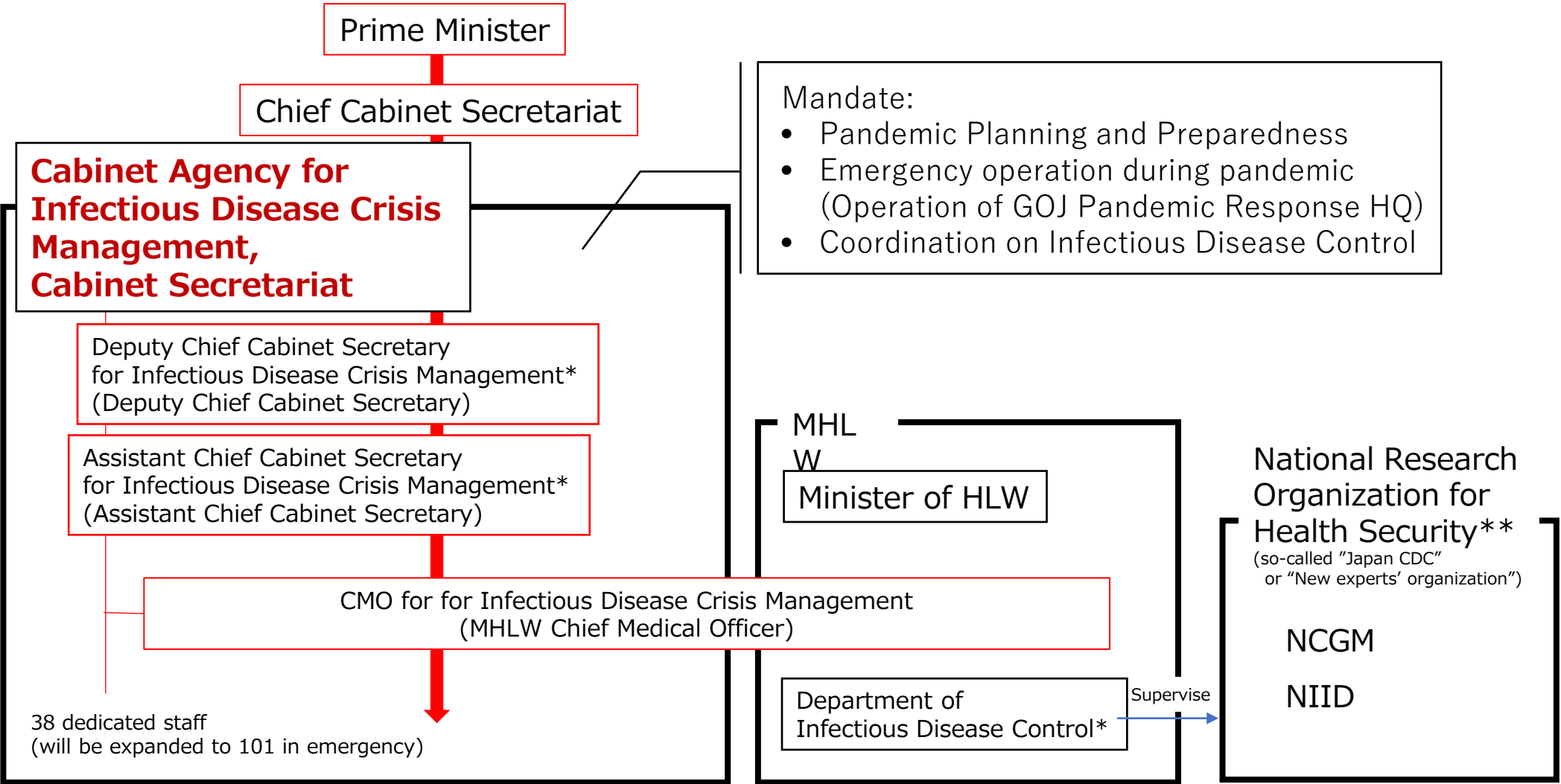




原図：防衛医大 川名明彦教授  
加筆：岡部



# New GOJ Governance Structure for Infectious Disease Control



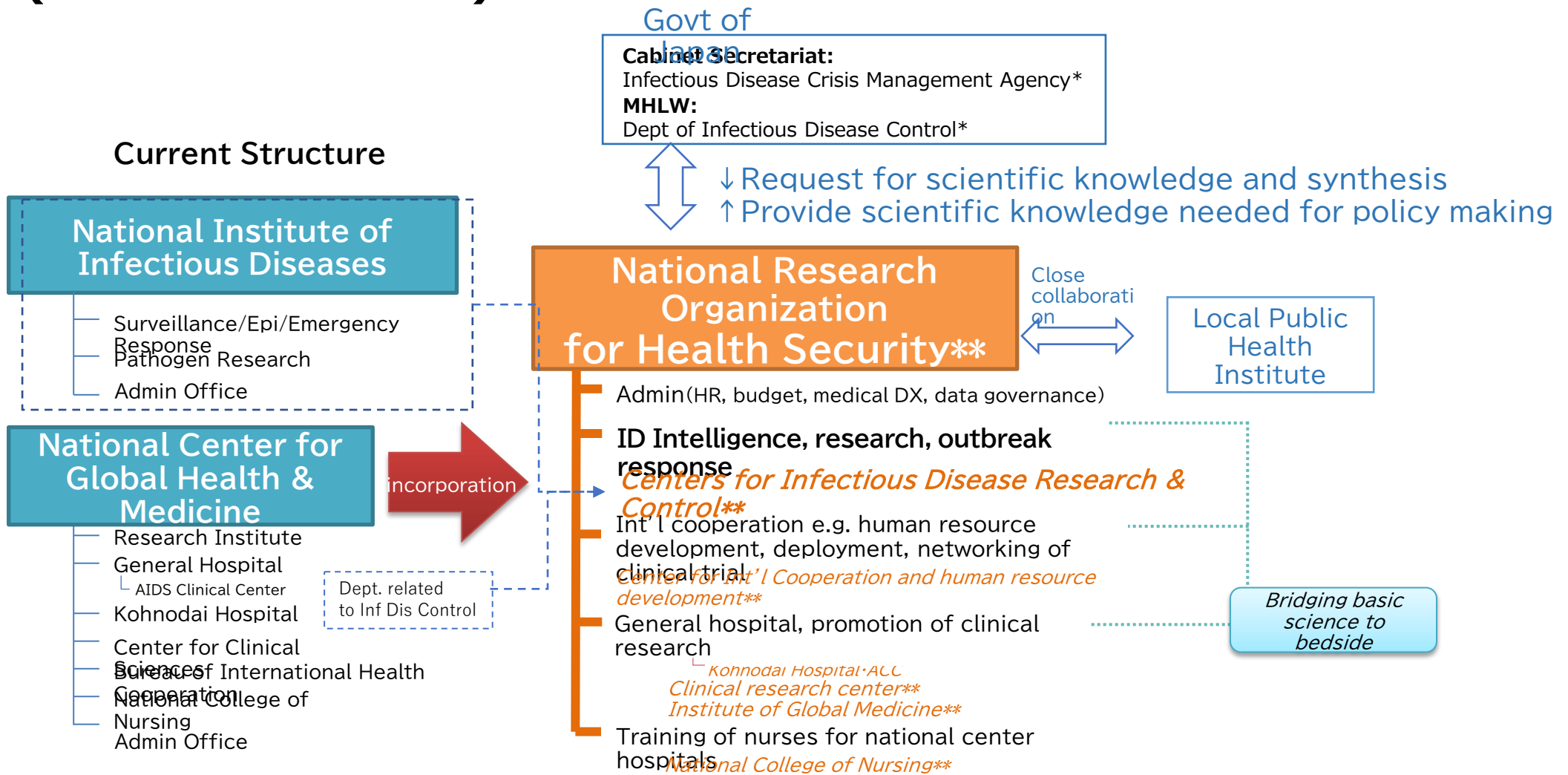
Mandate:

- Pandemic Planning and Preparedness
- Emergency operation during pandemic (Operation of GOJ Pandemic Response HQ)
- Coordination on Infectious Disease Control

\* Unofficial interim translation \*\* Interim name, unofficial interim translation



# Organizational Structure of New Experts' Organization (under discussion)



\* Unofficial interim translation \*\* Interim name, unofficial interim translation

# **8<sup>th</sup> National Medical Plan :MOHLW**

**Until now:**

**5 target diseases : Cancer, Apoplexy, Cardiovascular diseases such as Myocardial Infarction, Diabetes, Psychological diseases.**

**5 projects: Emergency Medical Care, Disaster Medical Care, Remote areas medical care, Perinatal and Pediatric medical care including Pediatric Emergency.**

**and “Medical care during the spread of emerging infectious diseases” will be added.**

# **Infectious disease prevention plan**

- Preventing the outbreak and spread of infectious diseases in accordance with local circumstances**
- Collection, investigation and research of information regarding infectious diseases and pathogens, etc.**
- Securing a system to provide medical care related to infectious diseases.**
  - Agreement between prefectures and medical institutions.**
- Securing a system for transporting patients with infectious diseases**

# **Infectious disease prevention plan**

- Improving the environment for medical treatment, etc. for people who are subject to refraining from going out**
- Policy for comprehensive coordination and instructions to prevent infectious diseases or spread**
- Training and improving the quality of human resources related to the prevention of infectious diseases**
- Strengthening the health center system**

# **Negative Capability**

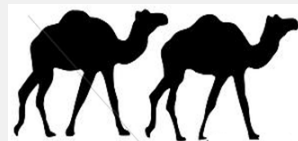
**John Keats, UK in 1817**

**...I mean Negative Capability, that is when man is capable of being in uncertainties, mysteries, doubts, without any irritable reaching after fact & reason.**

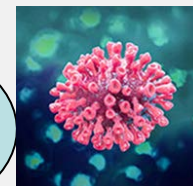
- Ability to withstand unanswerable situations**
- Ability to withstand situations where there is no easy answer**

**(Wikipedia)**

**日本ウイルス学会2023特別講演 JT生命誌研究館名誉館長 中村桂子博士**



I do not like  
this musk !!



川崎市健康安全研究所 川崎市川崎区殿町