



臺北醫學大學
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IHR 2005, Pandemic Treaty, where is the next direction?

Feng jen (Jean) Tsai

Director and Professor

Master and PhD Program in Global Health and Health Security

Taipei Medical University

IHR 2005 : New Instrument of Global Health Governance

- Expand the scope to “public health emergency of international concern”
- **require members to assess any health-related events identified by IHR 2005 within 48 hours and report to WHO within 24 hours**
- Create obligations of members to develop minimum core surveillance and response capabilities
- Authorize and empower WHO to use information and declare the existence of the pandemic
- Incorporation of human rights concepts



National Transparency matters in reporting timeliness gap

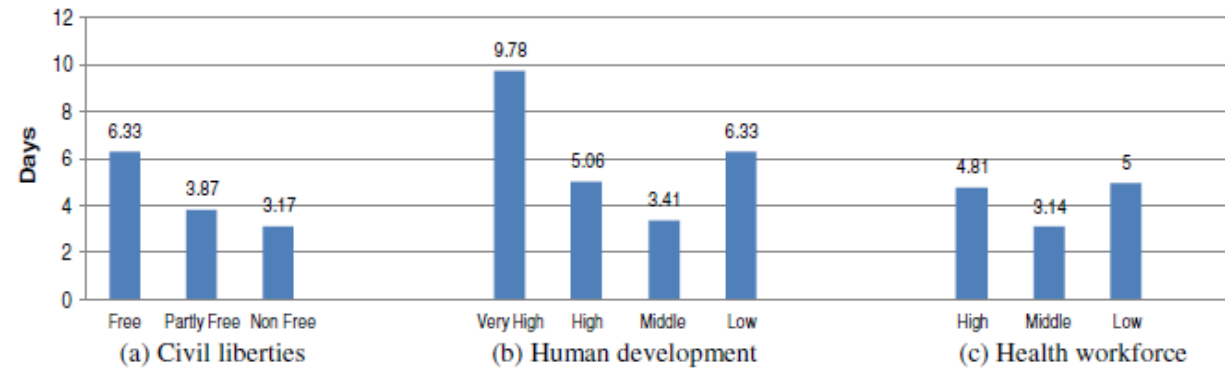


Figure 2 Reporting timeliness gap between WHO and ProMED-mail for avian flu and H1N1 outbreaks in countries classified by civil liberties (a), human development (b) and health workforce (c) indices.

IHR 2005 : New Instrument of Global Health Governance

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Develop minimum core capabilities

- **Self-assessment process**
 - **Release IHRMT in 2010**
 - **8 core capacities**
 - **Point of Entry**
 - **4 hazards**
 - **In 2012, only 42 (21%) nations reported**
 - **In 2014, only 64 (33%) nations reported**
-

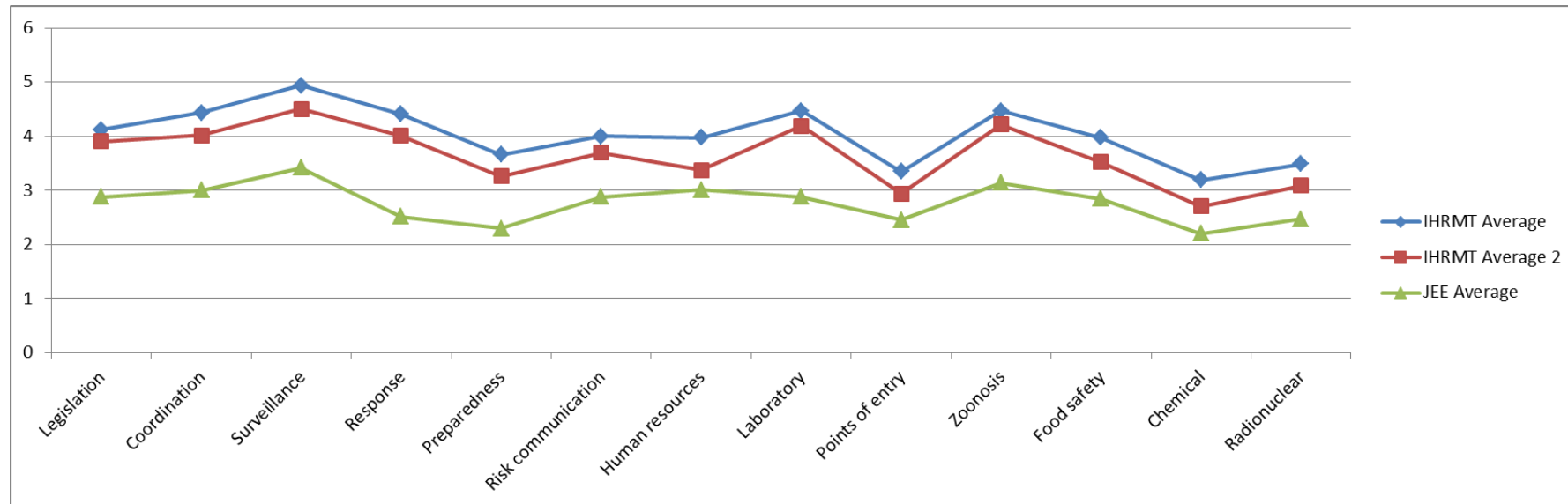
IHR 2005 and Joint External Evaluation (JEE)

The screenshot shows a web browser window displaying the WHO website. The address bar shows the URL www.who.int/ihr/procedures/mission-reports/en/. The page features the WHO logo and a navigation menu with options like 'Health topics', 'Countries', 'News', 'Emergencies', and 'About us'. The main content area is titled 'Strengthening health security by implementing the International Health Regulations (2005)' and 'Joint External Evaluation (JEE) mission reports'. It includes a world map color-coded by WHO region: African Region (yellow), Region of the Americas (red), South-East Asia Region (green), European Region (blue), Eastern Mediterranean Region (cyan), and Western Pacific Region (orange). Below the map, there is a paragraph explaining the JEE process and a section for 'Mission reports by WHO region'. The browser's taskbar at the bottom shows various application icons and the system clock indicating the date and time as 2018/9/27 at 09:15.

Measuring global health security: comparison of self and external evaluations for IHR core capacity



Feng-Jen Tsai¹ LLM, PhD, Rebecca Katz^{2*} PhD MPH



Key information: IHR score positively related to infectious disease control outcome

Table 3. Associations between disease control status and HDI, travel amount, health workforce and IHR scores

	Risk of bad Disease control status			
	2016		2017	
	All cases OR (95% CI)	Only human cases OR (95% CI)	All cases OR (95% CI)	Only human cases OR (95% CI)
HDI				
Very High	1	1	1	1
High	2.23 (1.15-4.35)*	1.84 (0.91-3.74)	4.71 (2.53-8.75)***	3.83 (2.00-7.33)***
Middle-low	1.97 (1.00-3.89)	2.65 (1.25-5.63)*	2.29 (1.24-4.21)**	2.96 (1.53-5.75)**
low	1.84 (1.04-3.27)*	1.68 (0.87-3.25)	3.59 (2.13-6.07)***	3.11 (1.75-5.54)***
International travel volume				
Low	1	1	1	1
High	2.19 (1.15-4.19)*	1.85 (0.95-3.60)	2.97 (1.68-5.25)***	2.79 (1.51-5.18)**
Health workforce density				
High	1	1	1	1
Middle	0.72 (0.27-1.92)	0.60 (0.19-1.84)	2.59 (1.07-6.31)*	3.17 (1.18-8.54)*
Low	0.80 (0.41-1.56)	0.73 (0.34-1.55)	1.55 (0.88-2.74)	2.24 (1.19-4.22)*
Total Health Expenditure				
High	1	1	1	1
Middle	2.08 (0.96-4.52)	1.78 (0.82-3.88)	0.83 (0.43-1.59)	0.75 (0.38-1.49)
Low	3.99 (2.18-7.29)***	2.84 (1.51-5.35)**	2.79 (1.68-4.61)***	1.85 (1.08-3.17)*
IHR average scores				
High	1	1	1	1
Middle	1.85 (0.89-3.85)	2.05 (0.86-4.89)		NA
Low	7.83 (4.10-14.95)***	11.16 (5.27-23.61)***	2.23 (1.25-3.96)**	3.45 (1.79-6.66)***

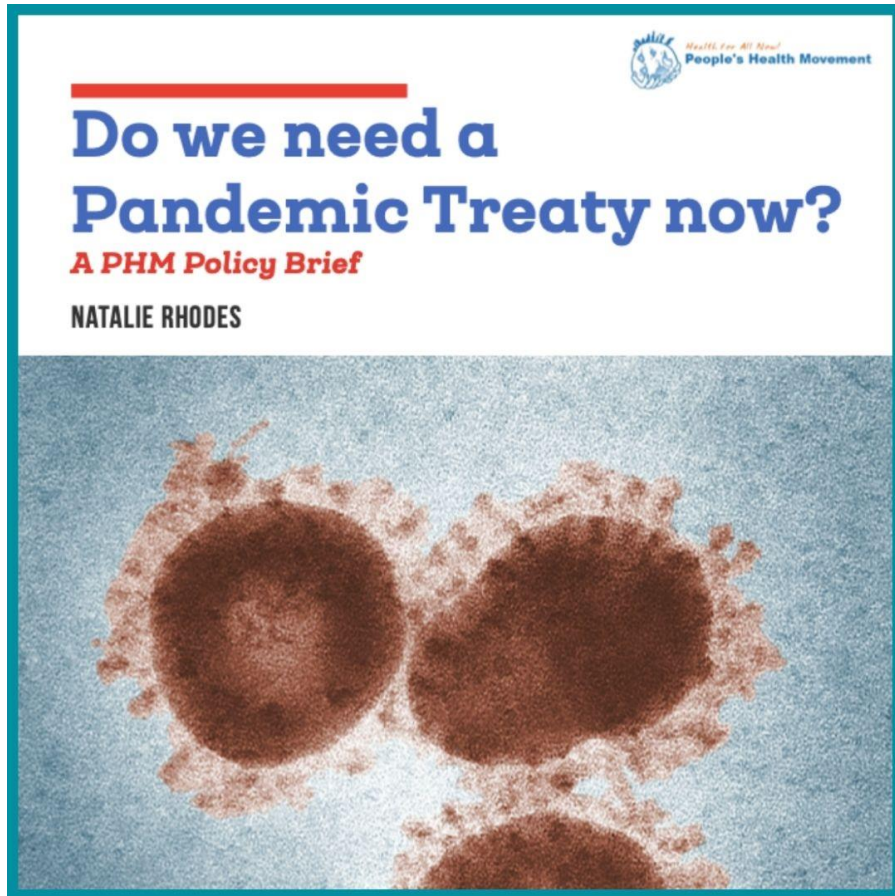
p<0.1*, p<0.05** p<0.01***

Key information: but many countries score them 100 in IHR 2016 and IHR 2017

Table 1 Scores of IHR core capacities reported by country in 2016 and 2017

	Self-reported IHR Scores							
	2016 (N of countries = 72)				2017 (N of countries = 84)			
	Mean	SD	Range	N of country scored 100	Mean	SD	Range	N of country scored 100
IHR core capacities								
Legislation	84.61	29.36	0~100	45	85.31	28.10	0~100	48
Coordination	91.88	13.84	20~100	37	90.18	19.80	0~100	45
Surveillance	93.55	10.5	30~100	26	90.28	12.09	25~100	20
Response	88.88	20.11	0~100	29	86.10	23.59	6~100	25
Preparedness	87.59	21.75	0~100	29	83.00	27.33	0~100	32
Risk communication	90.01	18.12	14~100	39	86.31	24.55	14~100	39
Human resources	80.61	24.94	0~100	31	77.31	26.42	0~100	34
Laboratory	85.44	18.62	39~100	24	90.35	17.31	17~100	27
Points of entry	75.56	34.9	0~100	12	68.23	37.70	0~100	11
Zoonosis	94.42	12.86	33~100	49	91.95	15.45	22~100	49
Food safety	83.16	18.57	0~100	30	85.21	22.30	0~100	36
Average score of 8 core capacities*	87.82	15.46	35.38~100	8	86.11	19.69	24.13~100	6

After COVID-19--



The screenshot shows the website for the Vaccine Ecosystem Initiative. The browser address bar displays "https://vaccineecosystem.economist.com". The navigation menu includes "Home", "Consensus Statement", "Advisory Council videos", "Context", "Framework", "Infographic", and "Contact us". The main heading is "The Vaccine Ecosystem". Below it, a paragraph states: "The Economist Group's Vaccine Ecosystem Initiative aims to promote a sustainable vaccine ecosystem by examining and reimagining elements critical for vaccine development, deployment, and adoption. As the development and deployment of covid-19 vaccines unfold around the world, we will take a comprehensive view across the broader vaccine ecosystem to explore:". To the right is a graphic with a syringe and a globe, labeled "The vaccine ecosystem". Below this are three numbered points: 1. building a healthy market with R&D incentives and procurement models that nurture innovation; 2. promoting supply chain resilience and equitable access across the manufacturing to distribution continuum; 3. fostering trust in vaccines, the systems that deliver them, as well as the people responsible for policy decisions and the health professionals who administer them. A row of logos follows, including Founding sponsors MSD and BD, Silver sponsor Siemens Healthineers, Pillar 4 research sponsor AeroSafe Global, and Institutional partner I-HLA. Below the logos is a video player showing a person in a lab coat. To the right of the video is the heading "Consensus Statement" and a short paragraph: "The consensus statement informs The Economist Group's Vaccine Ecosystem Initiative research agenda and guides our work to support the". The bottom of the page shows a Windows taskbar with the search bar and system tray.

Limits of SPAR preparedness

- **Countries with high SPAR scores responded significantly earlier, but 49.46% of countries with high and very high HDI implemented public health measures within a month of the first global case, whereas 20% of countries implemented PH measures after there was already a domestic case..**
 - **But at least after COVID-19, they modify SPAR score to reasonable level.**
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Partnership for Health System
Sustainability and Resilience



TAIWAN

Sustainability and Resilience in the Taiwanese Health System

Feng-Jen Jean Tsai, Bradley Chen, Hsiu-Wen Ula Yang, and Siwei Huang
with preface by Chang-Chuan Chan



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Dear Dr. Tsai

Would you be willing to review "Global Determinants of COVID-19 Vaccine Hesitancy: A Multifaceted Analysis using Structural Equation Modeling" by "Van Truong Le, Thanh Van Nguyen, Thi Thu Trang Vu, Jennifer Bouey, Nguyen Tien Huy, and TMGH Online Research Club Global Team"? This Research paper has been submitted to the Bulletin of the World Health Organization, and its abstract is as follows:

Next direction

- **Regional approach**
 - **Meaningful contribution**
 - **Value based alliance for health**
 - **Legal platform for infectious disease related Supply chain**
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謝謝聆聽 敬請指教

Thank You