



Proposal for a Scorecard for a Public Health Emergency of International Concern

A Public Health Emergency of International Concern (PHEIC) is defined in the International Health Regulations (2005) as “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response” (1).

The **IHR Emergency Committee** convened by the WHO Director-General regarding the outbreak of the novel coronavirus 2019 in the People’s Republic of China suggested in its recommendations on January 23, 2020, to discuss a reform of the current PHEIC system: “In the face of an evolving epidemiological situation and the restrictive binary nature of declaring a PHEIC or not, **WHO should consider a more nuanced system, which would allow an intermediate level of alert.** Such a system would better reflect the severity of an outbreak, its impact, and the required measures, and would facilitate improved international coordination, including research efforts for developing medical counter-measures.” (2)

Apart from the necessity to improve the binary decision-making system for a PHEIC on the expert level, the current media response and level of public alertness clearly demonstrate the need for a new communication tool, which can easily be updated and used to inform a non-specialized general audience. In previous outbreaks, similar situations, in which the communication between the authorities involved in the outbreaks and the media was not ideal have been observed (e.g. SARS 2002/2003, Ebola 2014/2015). These critical situations were also triggered by semi-informed statements of a range of outside experts, who were not directly involved in the outbreak response and could therefore not be made directly accountable for their media activities and the reactions caused by these. In addition, rumors and misinformation appear to spread even faster than viruses nowadays, leading to fear and overreactions.

Therefore, our aim is to develop a scorecard as a tool to transfer current knowledge, real-time evidence and the level of emergency in an outbreak situation in an understandable format to decision-makers, the media and the general public.

- This scorecard could also be used to continue the discussion on the IHR reform to include a multi-level system in case of a Public Health Emergency of International Concern.
- One of the main objectives is to keep this scorecard as simple, but objective and informative as possible while easy to understand for a lay audience.
- A slightly adapted version will be developed for a specific national context (e.g. outbreak situation in country A, risk assessment for country B) as risk assessments vary a lot for individual regions and countries and are essential for objective risk communications.
- **Please note:** As this scorecard is in its initial phase of development, we would like to invite everyone to provide us with feedback and suggestions, including research evidence, to build up a strong argument for a multi-level PHEIC system and to make this scorecard a valuable tool for decision-makers, the media and the general public as soon as possible.



Scoreboard for a Public Health Emergency of International Concern (IGGB Proposal)

	1	2	3	4	Score
Detection and Surveillance					
1 Cause identified	Yes	Yes, but final confirmation missing	A likely source has been identified	No	1-4
2 Way of transmission	Animal-to-human	Human-to-human (symptomatic)	Human-to-human (asymptomatic)	Unknown	1-4
3 Endangered population (Estimation)	Cases in one country < 1 Million people	Cases in one country > 1 Million people	More than 1 country, but less than 10 million people	More than 1 country and more than 10 million people	1-4
4 Attack rate (New cases / Persons at risk; estimation)	<10%	10-30%	>30%	Unknown	1-4
5 Reproductive number, R₀	<1	1-5	6-10	>10	1-4
6 Surveillance	Sufficient	Requires some improvement	Requires more improvement	Data incomplete and/or missing	1-4
Diagnostics and Treatment					
7 Diagnostic tools available	Yes, for everyone in need	Yes, but coverage not yet sufficient	Yes, but availability not yet sufficient	No specific tool available	1-4
8 Medical treatment available	Yes, specific treatment for everyone in need	Yes, specific treatment, but currently not for everyone in need	No specific treatment, but general treatment for everyone in need	General treatment for everyone in need still insufficient	1-4
9 Case - Fatality Rate	<0.1%	0.1-5%	5 - 15%	>15%	1-4
Prevention, Preparedness and Response					
10 Vaccine available	Yes, for everyone in need	Yes, but coverage not yet sufficient	Yes, but availability not yet sufficient	No	1-4
11 Public Health Response	Global cooperation	Regional cooperation	Only on national level	Early stage, still insufficient	1-4
12 Public Health Preparedness	Global cooperation	Regional cooperation	Only on national level	Early stage, still insufficient	1-4
OVERALL SCORE					12-48

PHEIC LEVEL	Response	Score
No PHEIC	National	12
1	National	13-18
2	Transnational (affected countries)	19-24
3	International (affected and neighboring countries)	25-30
4	Global	31-35
5	Global	>35



Example scores

These are current examples based on a quick web-based search. More research and a thorough analysis on an on-going basis are required here.

In addition, for this initial proposal we have rated all indicators with the same value. Depending on a range of determinants and taking the dynamic of an outbreak into consideration, the respective value of each indicator needs to be discussed on a regular basis.

Outbreak	Coronavirus China 2019 - 2020	Coronavirus China 2019 - 2020	Ebolavirus DRC 2018 - 2020
Situated on	Dec 31, 2019	Jan 30, 2020	Jan 30, 2020
1 Cause identified	2	1	1
2 Way of transmission	3	3	2
3 Endangered population	2	4	2
4 Attack rate	2	2	3
5 Reproductive number, R_0	4	2	2
6 Surveillance	4	2	2
7 Diagnostic tools available	4	2	1
8 Medical treatment available	3	3	3
9 Case - Fatality Rate	2	2	4
10 Vaccine available	4	4	1
11 Public Health Response	4	3	1
12 Public Health Preparedness	4	2	2
Overall Score	38 (of 48)	30 (of 48)	24 (of 48)
PHEIC Level	5	3	2

Please note:

As this scorecard is in its initial phase of development, we would like to invite everyone to provide us with feedback and suggestions, including research evidence, to build up a strong argument for a multi-level PHEIC system and to make this scorecard a valuable tool for decision-makers, the media and the general public as soon as possible.

Please send your feedback to:
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References

1. WHO. International health regulations (2005): World Health Organization; 2005.
2. WHO. Statement on the meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV) Geneva, Switzerland: World Health Organization, ; 2020 [Available from: [https://www.who.int/news-room/detail/23-01-2020-statement-on-the-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/23-01-2020-statement-on-the-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))].