How Loud and Clear Rung the Alarm Bell: The Communication Efforts of WHO on the Beginning of COVID-19 Outbreak

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Abstract

As seen clearly from the coronavirus disease 2019 (COVID-19) pandemic, health is an important foreign policy and diplomatic issue connected with security, economic well-being, and international development. According to risk communication researchers, effective, transparent, and timely information sharing is the most important tool after vaccines for responding to pandemics. This study aims to start a scholarly discussion on the risk communication efforts of the World Health Organization (WHO) during the COVID-19 outbreak. We analyzed WHO's communication efforts during the first 3 months of the COVID-19 pandemic. As the leading international health organization, WHO was responsible for providing rapid, up-to-date, and credible information for the public and the media. The selected research items were 42 news releases and statements provided by WHO between December 31, 2019, and March 30, 2020. These were subjected to qualitative and quantitative content analyses using the NVivo 12 qualitative analysis software program for coding. The data were coded under 6 variables (date of publication, topics, frequency, wording of the COVID-19 outbreak, sourcing, and themes of the releases). While 54.7% of WHO's communications were devoted to the COVID-19 outbreak, wHO acted overcautiously, preferring messages related to solidarity and cooperation during the most devastating pandemic of the 21st century.

Keywords

COVID-19, news releases, content analysis, risk communication, WHO

On December 31, 2019, the World Health Organization (WHO) was first informed that an unknown virus was causing pneumonia-like illnesses in the city of Wuhan, central China.^{1,2} The virus, coronavirus disease 2019 (COVID-19), belongs to the coronavirus family and is spread between people during close contact. Infected individuals may be asymptomatic or develop flu-like symptoms and a range of respiratory symptoms, ranging from those similar to the common cold to lung lesions and pneumonia.^{3,4} The severe acute respiratory syndrome (SARS) outbreak in 2002, which is regarded as "the first pandemic of the 21st century,"5(p475) and the Middle East respiratory syndrome (MERS) outbreak in 2012 were also caused by coronaviruses. The WHO Director-General defined the latest virus as "a unique virus with unique characteristics"⁶ before naming it COVID-19 to standardize and share with the information in a press conference on February 11, 2020. Globally, nearly 3.4% of reported COVID-19 cases have died, with 1.3 million confirmed cases and 80,000 deaths in the 4 months since the first announcement on December 9, 2019. During April 2020, more than 176 million confirmed cases and 3.7 million deaths. Numbers continue to increase due to the lack of any specific treatment. However the vaccines are produced against COVID-19, only limited number of population reached them globally.

In line with the claim by Jonathan Mayer, professor emeritus at the University of Washington's Department of Epidemiology, that "epidemics always have become political,"⁷ there has been much debate regarding many aspects of the COVID-19 pandemic, such as the time and location of the virus's first appearance, how it spread, and whether interventions were made in a timely manner. Despite official statements by the Chinese government to WHO that the first confirmed case was diagnosed on December 8, 2019, while the first human-to-human transmission was recorded on January 21, 2020, there has been much speculation and

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controversy about the outbreak's origin. The Guardian newspaper, for example, has cited the South China Morning Post's report that coronavirus cases were detected on November 17, 2019, weeks before the authorities acknowledged the new virus.⁸ Cable News Network has claimed that the first coronavirus patient started to show symptoms on December 1, 2019, yet the Chinese authorities let it spread freely in Wuhan for another 29 days.⁹ The origins of the virus have also become part of a United States-China diplomatic conflict, fueled by US officials who called the disease the "Chinese coronavirus" or "Wuhan virus" and by Chinese officials claiming it came from the US military.^{10,11} The United States state of Missouri, a few US citizens, and an attorney even filed lawsuits against the Chinese government, accusing it of a slow early response that caused "injury and incalculable harm to people and businesses."12,13 WHO also faces lawsuits over its handling of the COVID-19 outbreak.¹⁴ Recently, more than 110 nations have expressed support for an independent investigation into the global response to the coronavirus pandemic, and a draft of resolution is being circulated among diplomats and prepared for the World Health Assembly, the governing body of the WHO, which is part of the United Nations (UN).

Political figures and authorities have also accused WHO and China of not warning the world in a timely manner.^{15,16} WHO has been particularly criticized for "issuing bad advice" on travel restrictions¹⁷ and for mismanaging and covering up the spread of the virus after it emerged in China.¹⁸ WHO has been criticized as bureaucratic and slow to act as it did not officially declare the pandemic until March 11, 2020. Critics claim that this was so late that the outbreak was already beyond the control of states and governments.¹⁹ In response, the US government stopped its financial contribution to WHO,²⁰ while a petition calling for the resignation of the WHO Director-General, Dr Tedros Adhanom Ghebreyesus, has gained >1 million signatures.²¹

Given these political discourses, this study examines WHO's activities during the first 3 months of the COVID-19 outbreak, from December 31, 2019, to March 30, 2020. It evaluates how effectively WHO sounded the alarm bell for the international community in the first 3 months of the outbreak by analyzing WHO news releases from this period.

The following section explains WHO's function, particularly its leading role during pandemics, before considering its risk communication responsibility and agenda-setting function for global health. After explaining the research design and data gathering, the article presents the qualitative and quantitative findings. The conclusion summarizes the study.

WHO and Outbreaks

Because health is an important international concern, many national, regional, and international institutions and initiatives have been established, such as the Pan American Health

Organization, WHO, UNICEF, and the US Centers for Disease Control and Prevention. More than 50 privatepublic partnerships have also greatly supported global health internationally.²² However, this pluralism in international health agencies can also cause a fragmented, uncoordinated global health agenda and a leadership gap.²³ As the leading global agency, only WHO has the authority to develop and implement the required international health norms and standards through dialogue among member states.²⁴ WHO's international mission as an international coordinating agency is emphasized on its website: "Our primary role is to direct and coordinate international health within the United Nations system."²⁵ Moreover, its 3 essential core functions are highlighted in its basic documents: (1) normative functions, including establishing international conventions, agreements, and recommendations; (2) coordinating functions, such as implementing health and medical activities for its specific disease programs; and (3) research functions, including the eradication of diseases and outbreaks.²⁶

International cooperation efforts in health date back to 1851 to address cholera, which was a critical illness during that era. The first international sanitary conference held in Paris led to the establishment of the League of Nations Health Organisation in 1922. WHO took over its work in 1948.^{27(p11),28} WHO is defined as "a normative, standard-setting institution, a knowledge broker and provider of information and evidence, and advocate for global health."²⁹ One of WHO's 22 wide-ranging functions is "To act as the directing and co-ordinating authority on international health work."^{30(p11)} This involves providing technical assistance to governments in different fields of health care, including infectious disease control efforts and eradication programs.

Recent outbreaks in which WHO has alerted the international community have made the words "epidemic" and "pandemic" well-known in the international health literature. Diseases are labeled as epidemic or pandemic according to their etiologies and spread mechanisms. Examples include cholera, AIDS, influenza, SARS, and MERS. Although there is no single accepted definition of pandemic,^{31(p1019)} it refers to an outbreak "affecting a large proportion of the population and occurring widely throughout a region, country, or continent."³² In contrast to an epidemic, a pandemic can be prevalent in an entire country, continent, or the world.³³ The most important modern pandemics include cholera (1831-1832), the flu pandemic (1918-1919), and the swine flu pandemic (2009), along with AIDS, SARS, MERS, Ebola, Zika, and avian flu.

Historically, as shown in Figure 1, humanity has experienced many pandemics, including 1307 severe epidemic events between 2011 and 2017.^{35(p23)} However, most of them had only regional or national impacts. In contrast, the ongoing pandemic, officially named the COVID-19 outbreak on March 11, 2020, has made dystopian prophesies come true with its dramatic global effects. Many people have experienced curtailed liberties with a disturbing sense of unreality, The Number of the Epidemic Events (2011-2017)

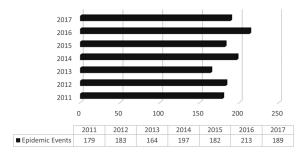


Figure 1. Number of epidemic events (2011-2017). Adapted from WHO 2018, 23.³⁴

whereby everything that was once familiar and comforting such as—going to a nice restaurant or browsing in a bookstore—has morphed into a potential death threat.

Since the beginning of the 21st century, WHO has documented a vast number of outbreaks of emerging infectious diseases. Lessons drawn from these outbreaks confirm that "Communication is as critical to outbreak control as laboratory analyses or epidemiology."³⁶ As an emerging field in the past 2 decades alongside crisis communication, risk communication is a multilevel process that defines risks and identifies hazards, through which international organizations communicate with governments and the public.³⁷ The growing interest of companies and other organizations in the discourse of risk communication regarding climate change and other risks is a clear indication of this action. Moreover, research has demonstrated the information exchange role of WHO as a mediator in international risk communication. However, WHO's political and institutional roles are being increasingly questioned following recent epidemics and pandemics, such as Ebola and Zika,³⁸⁻⁴¹ and currently by the COVID-19 pandemic.42

Risk Communication During Public Emergencies

The rise of mega crises in health and other fields has increased both the urgency and difficulty of disseminating instructions successfully during public emergencies.^{43(p136)} Effective, transparent, and timely information sharing during pandemics is considered the most important tool after vaccines.^{44(p324),45} Risk communication enables the public to take necessary steps to limit their exposure and reduce mortality rates. Moreover, if provided early enough, accurate information enables individuals and governments to make choices and take actions to protect citizens from health-threatening hazards.⁴⁶ Risk communication has been debated in light of 7 cardinal rules set by the US Environmental Protection Agency in 1988. It clearly underlined that the public, policymakers, news media, and other stakeholders expect timely and reliable information from

public health officials about the situation. In line with this framework, WHO is an agenda setter for international health issues and an important reference agency. This unique position also adds more responsibility to WHO, which is empowered as a global public health authority rather than simply as an international nongovernment organization (NGO).

According to risk communication researchers, the main obstacle to making effective decisions is uncertainty and incomplete data. Risk managers must therefore use risk assessment calculations to identify the potential harm posed by threats to health.⁴⁷ However, "risk communication in practice shows itself to be a much more complex, muddled, and disorderly process in which agents seldom have control over the communicative agenda."⁴⁸ Although time and money are considered important resources and salient in the literature on risk communication effectiveness, they only play marginal roles in practitioners' explanations.^{49(p166)}

In line with the risk communication framework in international public health, WHO is the primary global institution that serves as an information hub and fact-checking mechanism for governments, community leaders, the media, and other public or private bodies. WHO has manuals, training modules, and many other guides related to emergency and risk communication, including lessons from recent public health emergencies, such as SARS, MERS, Ebola, Zika, and yellow fever. These outbreaks have highlighted major challenges and gaps during pandemics and show how risk is communicated.⁵⁰

In 2005, acknowledging that communication is essential to controlling disease outbreaks, WHO developed communication guidelines to clarify the specific communication challenges, along with best practices examples, during a communicable disease outbreak. The guidelines highlight timing as the second most important issue when officially announcing an outbreak. The parameters of trust are established in the outbreak's first official announcement: "This message's timing, candour and comprehensiveness may make it the most important of all outbreak communications. The benefits of early warning outweigh the risks, and even those risks (such as providing inaccurate information) can be minimized with appropriate outbreak communication messages."⁵¹

Among the many guidelines on communications in general—and on risk communication in particular—open, honest, and ongoing interaction with the audience remains essential to successful communication during a crisis. The recent risk communication guidelines of WHO clearly underline "announcing early" as a fundamental step in effective disease outbreak communication practice.

WHO's Agenda-Setting Function

The news media is a critical intermediary that translates international politics into an understandable form to provide knowledge for governments and the public. The public then includes this information in their local discussions to form their own judgments regarding the world. This has been the background of agenda-setting theory since the 1970s. According to this logic, "the public learns the relative importance of an issue from the amount of coverage,"52 particularly the media's selection and placing of topics on newspaper front pages, framed by a particular perspective.⁵³ For information about sudden disease outbreaks, WHO sets the agenda for governments, the mass media, and the public by making certain issues more visible through its news releases and press briefings. According to both agenda-setting and priming models, people form attitudes and decisions based on the most accessible, available, and salient information.⁵⁴ If there is a sparse information environment, such as during the recent COVID-19 outbreak, biased messages may appear that can easily cultivate attitudes such as taking no precautions against the spread of the virus. In line with this theoretical foundation, WHO's news releases and other communication tools influence the attitudes and actions of countries. In short, it is an important agenda setter for international communities, countries, organizations, and global society.

The agenda-setting and priming approaches focus on how an issue or object becomes salient to the public. However, researchers also study agenda building: the influences and sources of news media agendas.⁵⁵ This highlights actors and their purposes during agenda setting, particularly regarding its "impact on the distribution of power and values in society."56(p226). Weaver et al.⁵⁷ identified 3 major sources in agenda building. The first is influential news sources, such as national leaders or political elites, which have a major impact on the media agenda. Turk,⁵⁸ for example, analyzed how political elites build the agenda through news releases, finding that government news releases increase the visibility of those issues in subsequent media coverage. WHO is also an influential news source regarding international health issues, equivalent to other agenda-setting political elites. Thus, particular attention should be paid to WHO's news releases and statements by the media, governments, and the public.

Research Methodology and Data Gathering

With regard to COVID-19 specifically, academic interest emerged after the statement of a WHO officer in Turkey, Professor Dr Toker Ergüder, National Professional Officer Noncommunicable Diseases and Life-Course and Road Safety. During a Turkish news program in HaberTürk television, he admitted "maybe, we [WHO] have not explained well enough." He continued by mentioning a possible weakness during WHO's initial communications regarding COVID-19: "Maybe we couldn't explain the seriousness of the incident on January 30. The WHO declared a Public Health Emergency of International Concern (PHEIC) on January 30, when the number of cases was around 7,000, that is, much less. However, on March 11, we saw that the whole world took action with the pandemic declaration of WHO ... I wish we [WHO] could have created this awareness around the world on January 30."⁵⁹

Taken together, Professor Ergüder's regret, criticisms of WHO by leading politicians, the United States' freezing of its financial contribution to WHO,⁶⁰ and recent academic research findings regarding WHO's weaknesses in handling the Ebola pandemic,^{61(p391)} suggest that WHO's initial communication efforts are an important research issue. Accordingly, this study investigates whether WHO acted in a timely and effective manner by analyzing WHO's communication efforts during the first 3 months of the COVID-19 pandemic.

For emerging health threats, WHO is a key source of rapid, up-to-date, and credible information for the public and the media.^{62(p19)} As a leading health institution, WHO uses various tools to implement its communication activities, ranging from social media messages to fact sheets, infographics, press conferences, and news releases.⁶³ Of these information environments, news releases are the most institutionalized, credible, traditional, and basic source of information. An examination of WHO's website indicates that the 2 most important types of content prepared for the media under the "newsroom" tab are "news releases" and "statements." Accordingly, 42 news items (29 news releases or press briefings and 13 statements) released between December 31, 2019, and March 30, 2020, were downloaded from the official WHO website.⁶⁴ This specific time period was chosen to include WHO's PHEIC declaration on January 30, 2020, upgrading the risk level for the global community to "high," and WHO's declaration of a global pandemic on March 11, 2020. Given that the outbreak has since dominated the global agenda, the first 3 months after its emergence are important for evaluating WHO's international risk assessment and communication efforts.

News releases are "short pieces of writing issued by companies or institutions to communicate newsworthy information to the journalist and to the general public."^{65(p9),66} This content is made publicly available either indirectly through media reporting or directly on corporate websites. Although the traditional aim of news releases is to attract the journalist community, "their primary readership has been recently shifting to the general public as well."⁶⁷ Thus, they have become informative and promotional texts as well as a prominent tool in the contemporary media context.^{68,69(p13),70}

In line with this logic, news releases or statements were chosen as the unit of analysis. Each release was categorized by date of publication, the topic of the release, and whether COVID-19 was mentioned (Supplemental Material 1).

After gathering the data, we conducted a 5-step analysis.⁷¹

Phase 1: Familiarizing the Researcher With the Collected Data

The researcher repeatedly read the entire data actively before the coding process. During this phase, the researcher took notes and marked the ideas for coding. This process helped the researcher prepare for the content analysis and the formal coding process. The aim was to develop and define the coding and make necessary adjustments throughout the entire analysis.

The 6 variables of the analysis were as follows: (1) date of the news releases (December 31, 2019-March 30, 2020); (2) main topics, divided into 7 categories (COVID-19-related releases, Ebola-related releases, recent international healthrelated studies/reports, celebration activities such as World Leprosy Day 2020, WHO's institutional affairs and appointments, other health issues, and financial contributions); (3) wording used to describe the COVID-19 outbreak; (4) themes of COVID-19-related releases; (5) patterns of sourcing (first 3 actors in the news releases); and (6) inclusion of the outbreak as the main or side issue to determine whether enough attention was given to the issue in the headline and opening paragraph. To ensure objective, systematic research results, the content categories were formed after prior examination of the data⁷² along with complementary quantitative and qualitative content analyses and thematic analysis.^{73(p18)}.

Phase 2: Generating Initial Codes

After repeated reading and getting familiarization with the data, the researcher produced the initial codes by investigating the visible content of the data in terms of the analysis variables. This inductive approach means that the themes identified were strongly linked to the data themselves,⁷⁴ such that "data-driven" content categories were established from the emerging coding after preliminary examination of the data and updated after repeated reading.⁷⁵

The most basic elements of the raw data or information were assessed in a meaningful way to create the preliminary coding list. Coding was done both manually and with the NVivo 12^{76} qualitative analysis software program to increase analysis transparency, accuracy, and efficiency. The content of the releases and the statements was uploaded to the program to identify the frequent use of words and create cloud analyses of the releases. Frequently used words helped us to identify the themes and sub-themes of the releases.

Two independent encoders with backgrounds in public health and communication were trained to apply the coding schema prior to the study. Cohens κ test was performed to evaluate the coders' reliability, based on a systematic random sample of 20 news releases/statements from different time periods.⁷⁷ Once the 20 news releases had been coded by each coder, the coding sheets were evaluated, and intercoder reliability was measured with the κ statistic to determine

consistency between raters. This yielded an acceptable score on all measures ($\kappa = 0.79$; p < .001), 95% confidence interval (0.504, 0.848).78 After coding 20 news releases, the coders Skyped to review the coding sheets and discussed any areas of divergence before agreeing on the final coding decisions. These scientific steps helped to strengthen both intercoder reliability and the validity of the research process. The coders had a few difficulties in identifying and categorizing the COVID-19-related topics as main or side issue in the releases. Ultimately, they coded COVID-19 as the main issue if it was identified clearly enough in the headline or mentioned in the first paragraph, whereas it was coded as a side issue if did not get much attention in the release.

Phase 3: Searching for Themes

After all the data were coded and collated, the different codes were grouped and labeled to form an overarching theme for the thematic analysis. There are 2 main approaches: "Thematic analysis can be an essentialist or realist method, which reports experiences, meanings, and the reality of participants, or it can be a constructionist method, which examines the ways in which events, realities, meanings, experiences, and so on are the effects of a range of discourses operating within society."^{79(p86)} Using guidelines developed by Braun and Clarke,⁷⁹ the thematic analysis was conducted to identify and analyze the themes within the news releases. A theme captures something important about the data in relation to the research question and represents some level of patterned response or meaning within the data set.

Many important themes and subthemes were included in the same release. Therefore, the main content and its focus, mentioned in the headline or the first paragraph, were coded as the primary theme of each release. If present, secondary and tertiary themes were also identified in the following paragraphs and coded accordingly. To increase transparency and systematicity, the NVivo 12 software program was used to identify themes with its list of frequently used words.

In total, 8 themes were identified in the releases: (1) infrastructure and shortages (masks, gloves, medical treatments, hospitals, etc) because of the outbreak; (2) warnings to countries, information about precautions, bans, and restrictions in countries because of the pandemic; (3) economic difficulties related to COVID-19 restrictions; (4) new and upcoming developments, such as vaccines and medicines; (5) new research related to COVID-19; (6) solidarity and campaigns against COVID-19; (7) risk communication in releases with WHO's clear international warnings and future suggestions and sharing of risk-related information about COVID-19; and (8) legal issues and suggestions to countries on how to budget for COVID-19 efforts within the framework of the law.

Phase 4: Further Analysis of the Content

After the thematic analysis, further content analysis was performed to categorize the content by main topics to identify COVID-19-related releases. These could then be analyzed in terms of describing the COVID-19 outbreak as the main issue or a side issue that complemented another topic. The news source was also an important variable and analytical category of the analysis. This variable helped identify the most prominent and visible news sources mentioned in the news releases. UN directors, health experts, international NGOs, companies, and up to 3 actors were identified and coded under this variable to identify the visible actors in the releases.

Phase 5: Producing the Report

After identifying all the variables and themes, the final step involved reporting the analysis as a scientific publication. This included explaining the complex stages of the analysis to convince the reader about the validity of this analysis.

Findings of the Research

WHO issued 42 news releases and brief statements (29 news releases and 13 statements) during the first 3 months of the COVID-19 outbreak (December 31, 2019-March 30, 2020). More than half (54.7%; 23 releases) were devoted to COVID-19 (Table 1). After a word-cloud analysis of the news releases, we found out that country warnings, restrictions, and bans were not frequently used words in the releases (Figure 2).

In addition to the broad visibility of COVID-19, the 6 other topics were Ebola disease, international studies (recent reports), celebration activities (Year of the Nurse and the Midwife 2020, World Leprosy Day 2020, etc), WHO's institutional affairs and appointments, other health issues, and financial contributions.

In terms of monthly coverage (Figure 3), COVID-19 represented a dramatically increasing proportion of WHO news

Table 1. Themes of the Releases and Statements.

The theme of the releases	Number of the themes	Percentage (100%)
COVID-19-related releases	23	54.8
Ebola-related releases	6	14.3
Recent reports/study and research	5	12
Day marking/celebration	3	7.1
WHO internal affairs	2	4.7
Attention-seeking health issues	2	4.7
Financial contribution	I	2.4
Total	42	100

Abbreviations: COVID-19, coronavirus disease 2019; WHO, World Health Organization.



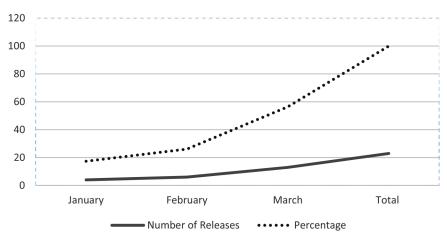
Figure 2. Word-cloud analysis of the releases.

releases. Clearly, most releases were issued after the pandemic had become devastating in Europe in March and therefore impossible to ignore.

The COVID-19-related news releases included many important themes and subthemes in the same release. Therefore, the main content and its focus that were mentioned in the headline or the first sentences of each news release were coded as the primary theme. If available, secondary and tertiary themes were also identified (Table 2). Regarding total theme allocation; solidarity, collaboration, and campaign-related information were always prominent in the releases. These 3 themes accounted for 34% of theme allocation (19 releases).

As Table 2 shows, WHO mostly focused on recently updated information regarding the outbreak as the primary theme, accounting for 16% of total theme allocation (but only 6 as the first theme). The second important theme was solidarity, campaign, and collaboration, which received equal attention as the primary theme (recent updated information), but received much more attention overall, accounting for 34% of total theme allocation. Third, the economy was the primary theme in 4 texts representing 14.3% of all themes (8 texts). Finally, warnings about COVID-19 were the primary topic in only 2 items, whereas they were the secondary theme in 5 news items. That is, WHO's news releases contained a few warnings in the headline or first 2 sentences of the content.

When we analyzed the secondary themes in the coverage (Table 2), solidarity and collaboration received the most attention as secondary news themes (7 items). Risk communication and transparency were mentioned only once as a secondary theme and 2 times as a tertiary theme. Solidarity, collaboration, and campaign-related information were consistently prominent (19 items): 6 times as the primary theme, 7 times as the secondary, and 6 times as the tertiary theme. The other themes were less frequent. Warnings to countries and the public were mostly placed after the headlines and opening lines of



COVID-19 related News Releases

Figure 3. Number and proportion of coronavirus disease 2019 (COVID-19)-related news releases (January-March, 2020).

Table 2.	Themes of	WHO (COVID-19	News	Releases.
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Topics of the news releases	Primary theme	Secondary theme	Tertiary theme	Total	Percentage
Infastructure and shortages	3	I	I	5	9
Warnings to countries (fake medicine, weak efforts, etc.)	2	5	I	8	14.3
Economic issues	4	3	I	8	14.3
Updated information	6	3	0	9	16.1
Reseach and studies	2	0	I	3	5.3
Solidarity, collaboration, and campaign	6	7	6	19	34
Risk communication and transparency	0	I	2	3	5.3
Law	0	I	0	I	1.7
Total	23	21	12	56	100

Abbreviations: COVID-19, coronavirus disease 2019; WHO, World Health Organization.

Table 3. Actors in the News Releases.

Actor categories	Primary actor	Secondary actor	Total	Percentage
WHO generally mentioned	5	2	7	9.3
WHO's Director Dr Tedros Adhanom Ghebreyesus	7	6	13	17.2
Other UN directors	11	7	18	23.6
Member countries or presidents, EU	4	6	10	13.2
Researchers/emergency comitee/universities	8	6	14	18.2
Other international NGOs	4	4	8	10.5
(Swiss Philanthropy Foundation, International Agency for Research on Cancer, FAO)				
Companies	0	2	2	2.7
Other actors (The Duchess of Cambridge, WHO Goodwill Ambassador, health workers, not member country Taiwan)	2	2	4	5.3
Total	41	35	76	100

Abbreviations: WHO, World Health Organization; UN, United Nations; EU, European Union; NGO, nongovernment organization; FAO, Food and Agriculture Organization.

the releases and coded as the secondary theme (5 times) and 8 times overall.

Another important analytical category is actors in the news releases (Table 3). WHO news releases most frequently mentioned UN directors (23.6%, 18 times) as the primary or secondary actor to give information about their achievements. The second most frequent actor category was the experts, the Emergency Committee (EC), regarding COVID-19 meetings and discussions on declaring the PHEIC (18.2%, 14 times). The most prominent actor overall was WHO general secretary, Dr Tedros Adhanom Ghebreyesus (17.2%, 13 times). He was mentioned 7 times as the primary actor and 6 times as the secondary actor.

Another important and frequently mentioned actor category was WHO member countries (13.2%, 10 times). Collaboration-related news releases also mentioned other international NGOs (10.5%, 8 times). The least-mentioned actor category was companies. Vaccine makers and drug companies were mentioned twice (2.7%).

Qualitative Findings

The first news release on January 13, 2020 "WHO Statement on Novel Coronavirus in Thailand," was only 8 sentences long. It highlighted ongoing efforts to identify the source of the virus. It gave no warning to the international community and, instead of China, Thailand was mentioned in the headline.

On January 23, WHO issued its first declaration to the international community on COVID-19. This long statement included information on the meeting of the EC of the International Health Regulation (IHR)⁸⁰ and its advice regarding the recent outbreak to WHO, China, other countries, and the global community. Although the statement described the situation as urgent, due to divergent views, the EC did not advise declaring a PHEIC,⁸¹ instead, it recommended examining the situation further before reconvening in 10 days.

On January 28, there was a short news release on the meeting of the WHO Director-General and Chinese President Xi Jinping. The COVID-19 disease and the precautions were described as a "battle against the coronavirus outbreak." The number of infected people was given as 4500. It also stressed that most were Chinese. The document gave no serious warning or advice to the international community. Instead, by praising China, it softened its tone while omitting measures to be taken against the virus.

The press statement of January 30 was the longest, most prepared briefing. It was published the same day after the EC's second meeting. It was divided into 6 parts and included advice to the WHO, China, all other countries, and the global community. The EC tried to justify its previous decision not to declare a PHEIC. Finally, it advised declaring a PHEIC with formal temporary recommendations under the IHR because the number of patients had jumped and spread across 5 WHO regions in just 1 month. WHO's web page gave technical advice regarding the outbreak, whereas WHO was further commissioned to use its networks of technical experts to contain the outbreak globally.

After declaring the PHEIC, WHO issued 2 news releases and 1 statement in February. The main topics were the financial cost of COVID-19, the global research and innovation forum to mobilize international action in response to the outbreak, a recent strategic collaboration agreement between WHO and the Foundation for Innovative New Diagnostics, and information regarding the Diamond Princess cruise ship.⁸² Although the virus had been reported in 24 countries by February 13, WHO did not issue any warning statements. Instead, WHO noted on February 13 that "That is the current picture ... we're not seeing a dramatic increase in transmission outside China." This clearly underestimated the threat of the virus spreading. The WHO still was waiting for the response of its international mission team, which had arrived in China on February 13. On February 27, WHO released a joint statement with the World Tourism Organization (UNWTO) on tourism restrictions. This underestimated the danger of COVID-19 by advising countries not to impose strict travel restrictions as they "may cause unnecessary interference with international traffic, including negative repercussions on the tourism sector."

The number of the releases dramatically increased in March, with 8 news releases and 4 statements, representing 52.1% of all announcements in the first 3 months of the outbreak. The first 2 news releases, dated March 1 and 3, informed the international community that WHO had upgraded its global risk assessment to the most serious level, "very high." WHO announced the allocation of \$15 million from the UN Central Emergency Response Fund for COVID-19 activities. The statement also noted the sudden increase in cases and named the affected countries. WHO called on them to take swift and robust action to detect cases early, isolate and care for patients, and trace contacts. UNICEF's risk communication efforts were mentioned, but the release mostly focused on economic support to fight the outbreak in countries with weaker health systems and informed the public about the urgent need for self-protection.

The second release, dated March 3, increased WHO's warning tone for the first time after 2 months. Specifically, it highlighted shortages of personal protective equipment (PPE) for health workers and urged governments and industry to increase PPE manufacturing capacity by 40%. The third brief release on March 7 declared that the number of confirmed COVID-19 cases had surpassed 100,000 and described the situation as a "sombre moment."⁸³ The brief mostly warned countries to take the necessary precautions as soon as possible.

Subsequent news releases and statements in March mostly focused on solidarity and joint actions. On March 13, 16, and 23, the releases covered the collaborative actions of WHO with diverse NGOs. On March 13, WHO, the UN Foundation, and partners launched a Solidarity Response Fund. For the first time in UN history, this was opened to individual contributions to WHO to help countries respond to the COVID-19 pandemic. On March 16, another cooperationrelated news release announced a close cooperation between WHO and the International Chamber of Commerce to share reliable information with the global business community. WHO also established a dedicated COVID-19 site to provide further essential information. On March 23, another news release announced a joint awareness campaign between WHO and Fédération Internationale de Football Association (FIFA) to tackle the COVID-19 outbreak.

Intriguingly, the news release on March 25 "How to Budget for COVID-19 Response?" was later removed from WHO's website. It had included useful advice regarding a rapid scan of budgetary mechanisms in severely affected countries. The number of news releases and statements increased sharply again in the last week of March. On March 26, WHO's Director addressed the G20 leaders, defining the situation as being "at war with a virus that threatens to tear us apart" and called for a collaboration initiative with G20 countries. On March 31, WHO warned the international community about fake medical products and unregulated websites supplying medicines and/or vaccines against COVID-19. WHO clearly declared that there was no recommended medicine to treat or cure COVID-19, it warned governments about fake medical products, and it published emergency lists with contact details and links.

The news release on March 29 highlighted the need for equal access to updated information regarding the COVID-19 outbreak. On March 30, WHO released a press statement in a joint call with 3 international organizations regarding food and trade securities. The international NGOs urgently called on governments to act responsibly and enhance food security by minimizing the impacts of measures to fight COVID-19 on the food supply, global trade, and food security.⁸⁴ The news release issued on March 30 gave updated guidelines for countries to maintain essential health services during the pandemic without the entire health system collapsing. It highlighted the value of updated information, regular and transparent public communication, and maintaining public trust in the system. The release also provided links to guidance and further information regarding the COVID-19 outbreak.

Discussion of Findings

Health is an important foreign policy and diplomatic concern connected to security, economic well-being, and international development, as clearly demonstrated by the COVID-19 outbreak that started in December 2019. Policy decisions and actions on such issues influence health outcomes and change how health threats appear and spread. For health threats of all kinds, it is important for WHO, as a key source of credible international health information, to provide governments, the public, and the media with quick and easy access to up-to-date information.

This study was motivated by a recent statement of regret by a WHO representative, Professor Toker Ergüder, and other accusations by politicians and bureaucrats regarding

WHO's initial weak handling of the COVID-19 pandemic. The study analyzed WHO news releases and statements issued during the first 3 months of the COVID-19 pandemic between December 31, 2019, and March 30, 2020. As WHO's primary, institutionalized communication tool and the most visible documents on its website, 42 news releases and statements were analyzed. To our knowledge, this study offers the first systematic analysis of WHO's press releases on COVID-19. Accordingly, this study aims to start a scholarly discussion on WHO's risk communication efforts during the COVID-19 outbreak. WHO has rejected criticisms of its approach, claiming that it acted swiftly and robustly by declaring a PHEIC on January 30, 2020, following the Chinese government's formal announcement of an outbreak on December 31, 2019. WHO then declared a pandemic on March 11, 2020. Nevertheless, the findings of this study suggest that there were weaknesses in WHO's risk communication strategy during the first 2 months of the COVID-19 outbreak in January and February 2020.

During the period analyzed, 54.7% (23 releases) of WHO's communications were devoted to the COVID-19 outbreak. However, although this might seem a reasonable proportion of the total coverage within the 3 months, we should not ignore that 12 of the 23 releases were not issued until March. Moreover, the predominant primary themes were allocation, solidarity, institutional collaboration, and fund-raising campaigns. These themes received 19 times more coverage than risk communication and warnings to the international community. Risk communication and transparency were mentioned only once as a secondary theme and twice as a tertiary theme. Solidarity, collaboration, and campaign-related information were given high importance in all releases. No other topics were mentioned as frequently. Warnings to countries and the public were mentioned 5 times as a secondary theme (ie, mostly found later than the headlines or opening lines) and 8 times in total. The actor coverage of the releases also highlighted the low level of warnings by mostly mentioning WHO as an organization, other WHO Directors, or WHO's General Secretary.

During the first 3 months of the COVID-19 outbreak, WHO undoubtedly took effective actions. It established a Pandemic Supply Chain Network to boost production for global needs; it prepared infographics, web information, and other communication guidance for the international community; it sent a mission team to China; it hosted a 2 day research forum that gathered more than 300 researchers to discuss recent updates; it organized a historical Solidarity Response Fund that invited individual contributions; it launched a virtual awareness campaign with FIFA; and it allocated more UN funds to fight COVID-19.

Although the study has solid and strong findings, it has several limitations that may have affected the results. First, the analysis was restricted to a specific time period and concentrated on news releases and statements instead of media articles and briefings. This was because news releases are the most important WHO documents and positioned as the first available document on WHO's official website under the "newsroom" tab. However, other potentially important social media channels and news articles were excluded, as the study focused on news releases as the most institutionalized, available, and emphasized WHO document.

Second, this study did not conduct any interviews with WHO bureaucrats or media affairs officials, who could have provided more data and insight for the study. Interviews might have expanded and differentiated the scope of the analysis from reference studies in this field. Unfortunately, they were inaccessible during the outbreak. Thus, much more research is needed in this context, and future studies could investigate these excluded aspects.

Conclusion

According to risk communication theories, timely information is the most important issue in outbreak communication. The findings in this study suggest that WHO failed to warn countries early enough, although its primary responsibility is providing technical assistance to governments in various health-related spheres as the directing and coordinating authority for international health. After the first formal announcement of the outbreak in China, WHO issued only 1 news release concerning risk between December 31, 2019, and January 23, 2020. That single, short announcement on January 13, 2020, confirmed that the virus had reached Thailand. There were 5 news releases on other topics during the same period, but nothing devoted to the COVID-19 outbreak throughout the following 10 days in January. On January 23, 2020, following the IHR (2005) meeting of the EC, WHO failed to announce a PHEIC despite 557 confirmed cases and 17 deaths. The next news release on January 28 noted that 4500 people had been infected and described the outbreak as a "battle." However, this news release also failed to give any serious warning or advice to the international community. WHO is an important international gatekeeper and the whole world was expecting more warning and information efforts in the COVID-19 outbreak, but when we analyzed the press releases and the statements of the organization, we did not encounter a strong warning until March 2020. Instead, it mostly praised China regarding its achievements during the outbreak at time when US officials were calling the disease the "Chinese coronavirus" or "Wuhan virus." Initially, WHO declared a PHEIC with temporary recommendations under the IHR in 2005 when there were about 20,000 cases and 170 deaths and a sudden spread to 5 WHO regions within 1 month. Instead of strongly warning countries regarding COVID-19, WHO's joint statement with UNWTO on February 27, 2020, underestimated the danger of COVID-19 by advising countries to avoid travel restrictions that hindered the international traffic and tourism sector. Thus, apart from declaring a PHEIC on January 30, WHO never, clearly or strongly,

warned countries from December 31, 2019, to the beginning of March 2020. This is evidenced by WHO's news releases and statements. Instead, WHO's communications throughout March mostly focused on solidarity, collaborative actions, fundraising, and awareness campaigns before intensifying in the last week of the month.

The qualitative and quantitative analysis of WHO's news releases and statements revealed that WHO acted overcautiously, preferring solidarity and cooperation-related messages instead of warning the international community about the most devastating pandemic so far of the 21st century.

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Supplemental Material

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