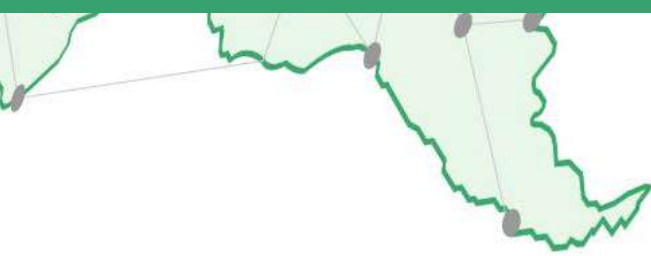




COVID-19: The Authoritative Chronology, December 2019–March 2020

Background paper 2a
The Independent Panel for Pandemic Preparedness and Response
May 2021



The
Independent
Panel

FOR PANDEMIC
PREPAREDNESS
& RESPONSE



Glossary and abbreviations

AFCOR—Africa Task Force for Novel Coronavirus

AFR—WHO African Region

AMR—WHO Region of the Americas

AP—Associated Press

Article 6—International Health Regulations section regarding Member State notifications to the World Health Organization about a potential international health threat

Article 10—International Health Regulations section regarding Member State verification of emerging disease threat information

AU—African Union

CCDC—Chinese Center for Disease Control

COVID-19—the disease caused by SARS-CoV-2

DG—WHO Director-General

Dispersion factor k—describes how a disease clusters

EB—WHO Executive Board

ECDC—European Centre for Disease Prevention and Control

ED—Executive Director

EEA—European Economic Area

EMR—WHO Eastern Mediterranean Region

EU—European Union

EUR—WHO European Region

G7—Group of Seven

G20—Group of Twenty

GOARN—WHO Global Outbreak Alert and Response Network

HCWs—health care workers

h-to-h—human-to-human

HQ—headquarters

IASC—Inter-agency Standing Committee

IDVI—Infectious Disease Vulnerability Index

IFRC—International Federation of Red Cross and Red Crescent Societies

IHR—International Health Regulations

ILO—International Labour Organization

Mean serial interval—indicates the length of time between symptom onset of an initial case and any subsequent cases

nCoV—novel coronavirus

PCR—polymerase chain reaction

R&D—research and development

PHEIC—Public Health Emergency of International Concern

PPE—personal protective equipment

ProMED—Program for Monitoring Emerging Diseases

PUO—pneumonia of unknown origin

R0—R naught, basic reproduction number, estimates how many other cases one infected individual is likely to cause prior to institution of public health measures or development of immunity

Rt and Re—R at time t, effective reproduction number, estimates how many other cases one infected individual is likely to cause at a specific time, considering immunity and public health measures

RaTG13—a type of bat coronavirus

RCCE—Risk Communication and Community Engagement

SARS—severe acute respiratory syndrome

SARS-CoV-2—severe acute respiratory syndrome-coronavirus-2, the virus that causes COVID-19 disease

SCMP—South China Morning Post

SEAR—WHO South-East Asian Region

STAG-IH—WHO Strategic and Technical Advisory Group for Infectious Hazards

UN—United Nations

UNHCR—UN High Commissioner for Refugees

UK—United Kingdom

US—United States

US CDC—United States Centers for Disease Control and Prevention

WASH—Water, Sanitation, and Hygiene

WHO—World Health Organization

WPRO—WHO Western Pacific Regional Office

2019-nCoV—novel coronavirus 2019

CHRONOLOGY LEGEND

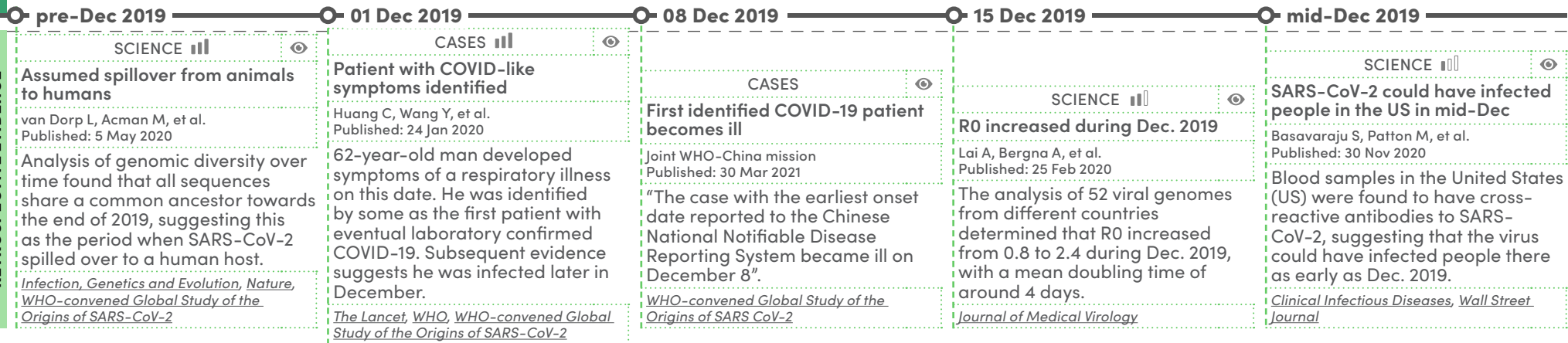
SUB-CATEGORY	
Headline	
Author/Actor Published: <<Date>>	
Caption	
Source <i>Links to other sources e.g. news release</i>	
Time zones CST – China Standard Time CET – Central European Time	
<div style="display: flex; align-items: center; margin-bottom: 5px;"> International actions</div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> Country actions</div> <div style="display: flex; align-items: center; margin-bottom: 5px;"> Real-time evidence</div> <div style="display: flex; align-items: center;"> Retrospective evidence</div>	
<div style="display: flex; align-items: center; margin-bottom: 5px;">📄 Annotations</div> <div style="display: flex; align-items: center; margin-bottom: 5px;">✳️ Key events</div> <div style="display: flex; align-items: center; margin-bottom: 5px;">🔒 Private document</div> <div style="display: flex; align-items: center; margin-bottom: 5px;">👁️ Public document</div> <div style="display: flex; align-items: center;">🌐 WHO action</div>	
<p style="text-align: center;">Strength of research</p> <div style="display: flex; align-items: center; margin-bottom: 5px;">▬▬▬ 1 - low quality pre-print</div> <div style="display: flex; align-items: center; margin-bottom: 5px;">▬▬▬ 2 - medium peer reviewed</div> <div style="display: flex; align-items: center;">▬▬▬ 3 - high quality top tier journal</div>	

INTERNATIONAL

COUNTRY

REAL-TIME EVIDENCE

RETROSPECTIVE EVIDENCE



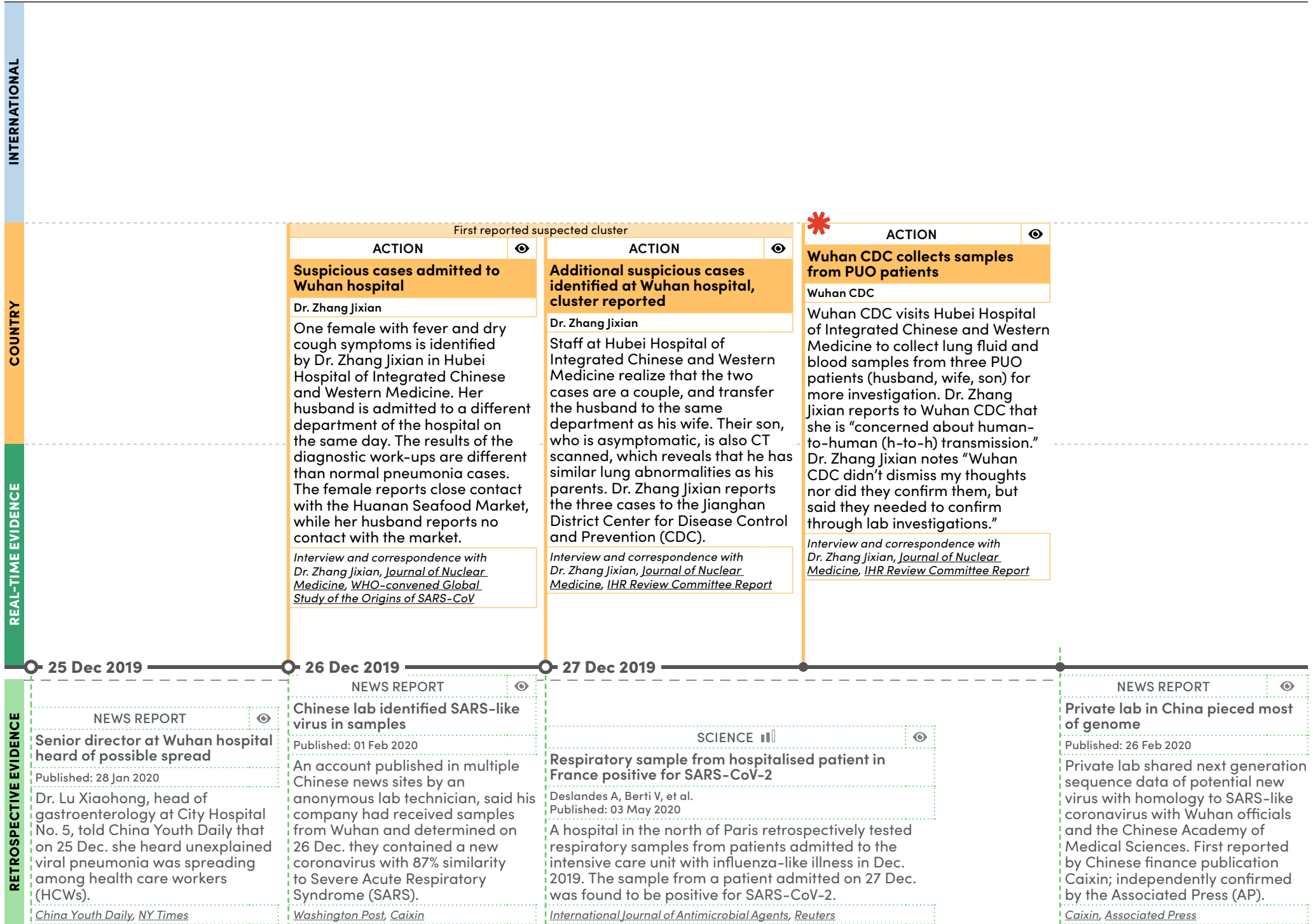
INTERNATIONAL

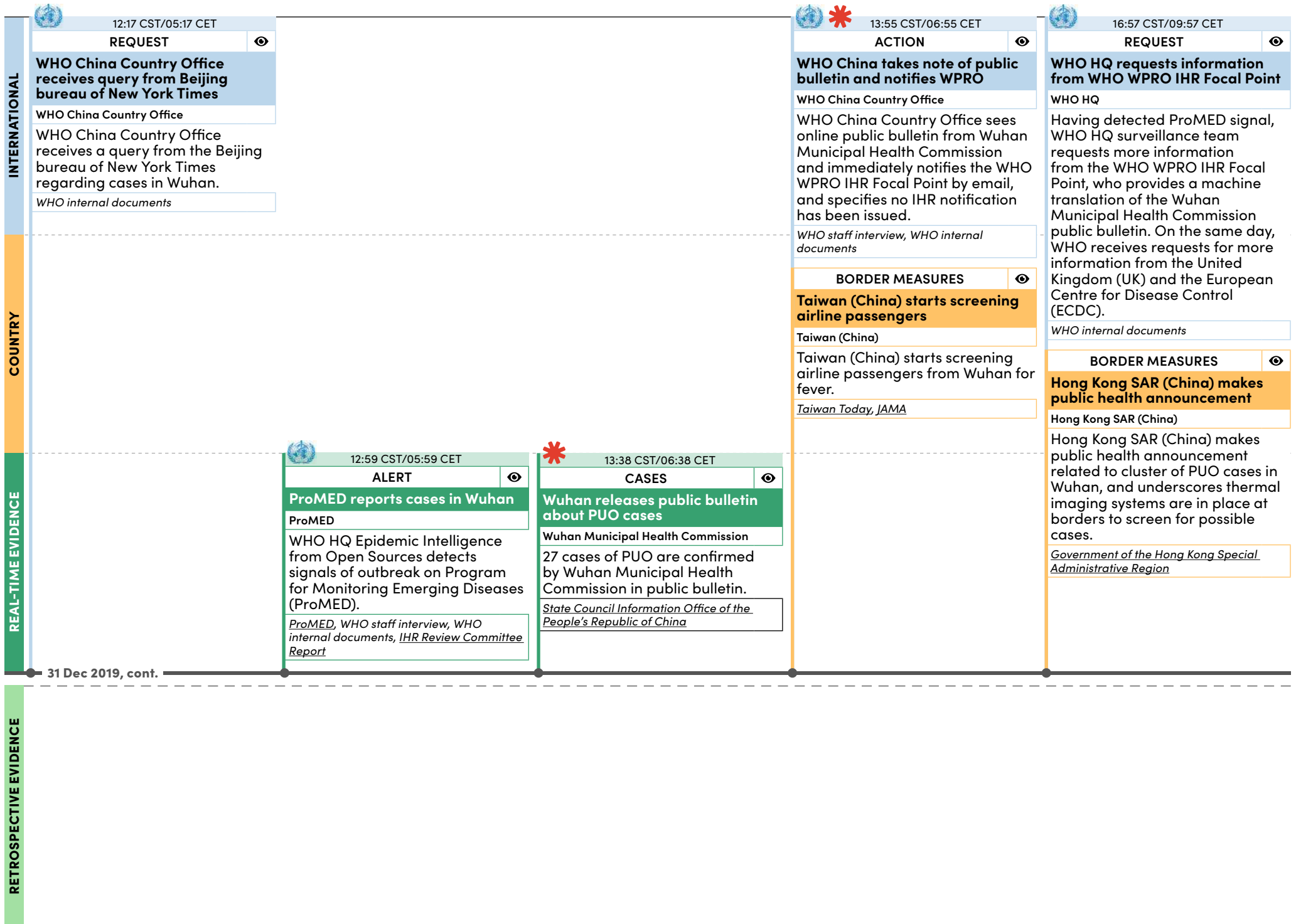
COUNTRY

REAL-TIME EVIDENCE

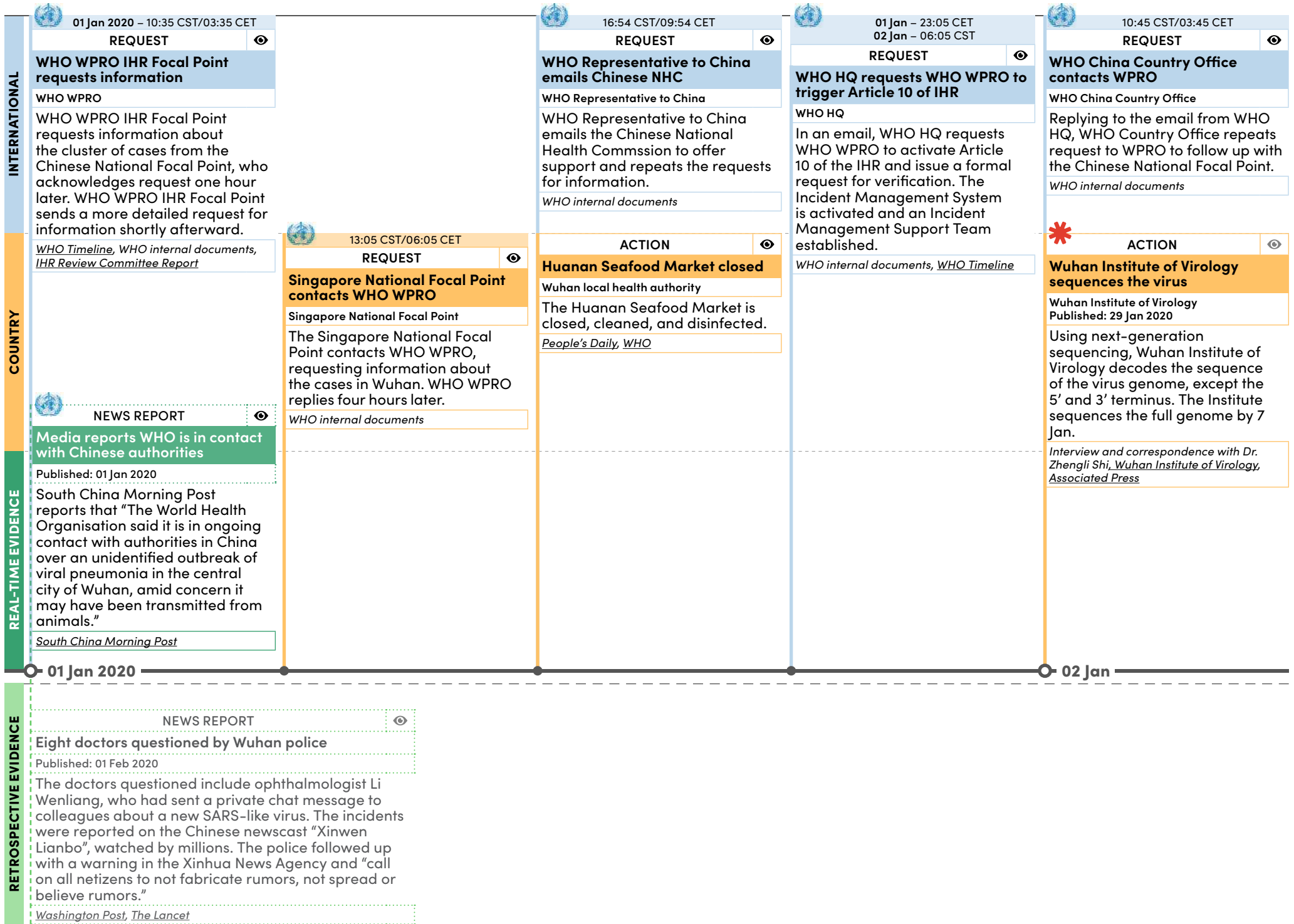
RETROSPECTIVE EVIDENCE

	16 Dec 2019	18 Dec 2019	21 Dec 2019	24 Dec 2019
	16 Dec 2019–02 Jan 2020		21 Dec–30 Dec 2019	
	CASES		CASES	
	<p>Patients with PUO admitted to Wuhan hospital (later confirmed as SARS-CoV-2)</p> <p>Huang C, Wang Y, et al. Published: 24 Jan 2020</p> <p>41 patients with pneumonia of unknown origin (PUO) were admitted to a Wuhan hospital between 16 Dec.–2 Jan. Confirmed as SARS-CoV-2 in Jan. 2020.</p> <p><i>The Lancet</i></p>		<p>Three patients with PUO identified in Wuhan (later confirmed as SARS-CoV-2)</p> <p>Zhu N, Zhang D, et al. Published: 24 Jan 2020</p> <p>Three patients with PUO were identified in Wuhan from 21 Dec. onwards. Lung fluid samples collected 30 Dec. during hospital admission later confirmed SARS-CoV-2. One patient was a retailer at the Huanan Seafood Market, another a frequent market visitor. One died 9 Jan. 2020, the others were discharged.</p> <p><i>New England Journal of Medicine</i></p>	
	<p>SCIENCE </p> <p>Sewage samples in Italy possibly positive for SARS-CoV-2</p> <p>La Rosa G, Mancini P, et al. Published: 15 Aug 2020</p> <p>Sewage samples from 18 Dec. in Milan and Turin were found to be positive for SARS-CoV-2, but may be false positives.</p> <p><i>Science of the Total Environment</i></p>		<p>NEWS REPORT </p> <p>Wuhan doctors sent lung fluid sample to commercial lab for testing</p> <p>Published: 05 May 2020</p> <p>Wuhan doctors noticed pneumonia patients were not responding to usual treatments and sent a test sample to Vision Medicals (commercial lab) for next generation sequencing/testing.</p> <p><i>Chinese Medical Journal, PBS Frontline, Caixin</i></p>	





31 Dec 2019, cont.



INTERNATIONAL

01 Jan 2020 – 10:35 CST/03:35 CET

REQUEST

WHO WPRO IHR Focal Point requests information

WHO WPRO

WHO WPRO IHR Focal Point requests information about the cluster of cases from the Chinese National Focal Point, who acknowledges request one hour later. WHO WPRO IHR Focal Point sends a more detailed request for information shortly afterward.

WHO Timeline, WHO internal documents, IHR Review Committee Report

COUNTRY

01 Jan 2020

13:05 CST/06:05 CET

REQUEST

Singapore National Focal Point contacts WHO WPRO

Singapore National Focal Point

The Singapore National Focal Point contacts WHO WPRO, requesting information about the cases in Wuhan. WHO WPRO replies four hours later.

WHO internal documents

REAL-TIME EVIDENCE

01 Jan 2020

NEWS REPORT

Media reports WHO is in contact with Chinese authorities

Published: 01 Jan 2020

South China Morning Post reports that “The World Health Organisation said it is in ongoing contact with authorities in China over an unidentified outbreak of viral pneumonia in the central city of Wuhan, amid concern it may have been transmitted from animals.”

South China Morning Post

RETROSPECTIVE EVIDENCE

02 Jan 2020

NEWS REPORT

Eight doctors questioned by Wuhan police

Published: 01 Feb 2020

The doctors questioned include ophthalmologist Li Wenliang, who had sent a private chat message to colleagues about a new SARS-like virus. The incidents were reported on the Chinese newscast “Xinwen Lianbo”, watched by millions. The police followed up with a warning in the Xinhua News Agency and “call on all netizens to not fabricate rumors, not spread or believe rumors.”

Washington Post, The Lancet

16:54 CST/09:54 CET

REQUEST

WHO Representative to China emails Chinese NHC

WHO Representative to China

WHO Representative to China emails the Chinese National Health Commission to offer support and repeats the requests for information.

WHO internal documents

ACTION

Huanan Seafood Market closed

Wuhan local health authority

The Huanan Seafood Market is closed, cleaned, and disinfected.

People’s Daily, WHO

01 Jan – 23:05 CET

02 Jan – 06:05 CST

REQUEST

WHO HQ requests WHO WPRO to trigger Article 10 of IHR

WHO HQ

In an email, WHO HQ requests WHO WPRO to activate Article 10 of the IHR and issue a formal request for verification. The Incident Management System is activated and an Incident Management Support Team established.

WHO internal documents, WHO Timeline

10:45 CST/03:45 CET

REQUEST

WHO China Country Office contacts WPRO

WHO China Country Office

Replying to the email from WHO HQ, WHO Country Office repeats request to WPRO to follow up with the Chinese National Focal Point.

WHO internal documents

ACTION

Wuhan Institute of Virology sequences the virus

Wuhan Institute of Virology

Published: 29 Jan 2020

Using next-generation sequencing, Wuhan Institute of Virology decodes the sequence of the virus genome, except the 5’ and 3’ terminus. The Institute sequences the full genome by 7 Jan.

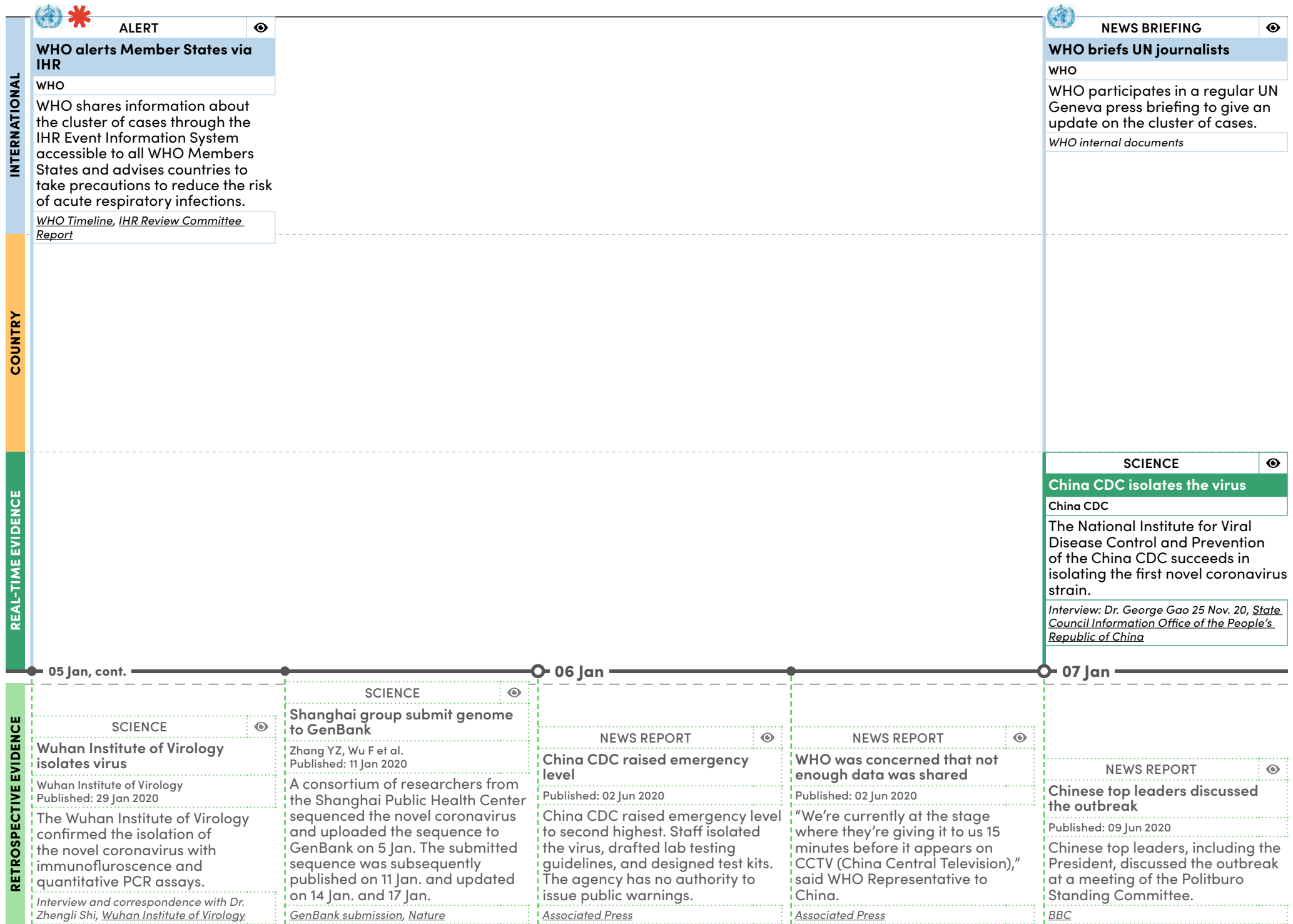
Interview and correspondence with Dr. Zhengli Shi, Wuhan Institute of Virology, Associated Press

	16:00 CST/09:00 CET	21:00 CST/13:00 CET	REQUEST	03 Jan – 11:15 CST/04:15 CET	16:00 CST/09:00 CET
INTERNATIONAL	MEETING First three-level teleconference WHO Incident Manager Support Team WHO Incident Manager Support Team holds its first three-level teleconference. In a context of increasing requests for information from several Member States, specifics of activating IHR to obtain further information from China are discussed. <i>WHO internal documents</i>	MEETING WHO and GOARN teleconference WHO and GOARN WHO and WHO Global Outbreak Alert and Response Network (GOARN) hold a teleconference about the outbreak. China CDC does not join the call. <i>WHO internal documents, WHO Timeline</i>	REQUEST WHO Representative to China writes formal letter to China WHO Representative to China WHO Representative to China writes a letter to the National Health Commission, offering support and urging the Commission and the China IHR National Focal Point to respond urgently to requests for information. <i>WHO internal documents, WHO Timeline</i>	REQUEST WHO WPRO contacts China, triggering Article 10 of IHR WHO WPRO WHO WPRO requests information from the Chinese National Focal Point under Article 10 of IHR. The Focal Point replies five hours later and confirms information issued by Wuhan Municipal Health Commission. <i>WHO internal documents, IHR Review Committee Interim Progress Report</i>	MEETING First technical briefing between China and WHO WHO Country Office First of three technical briefings between WHO China Country Office and the Chinese National Health Commission. China gives WHO information matching the public bulletin, issued one hour later. A WHO three-level teleconference is held immediately following the meeting. <i>WHO internal documents, WHO Timeline</i>
	REQUEST Countries ask WHO for information Countries Several Member States, including Malaysia and the Republic of Korea, request further information about the outbreak from WHO. <i>WHO internal documents</i>	BORDER MEASURES Hong Kong SAR (China) to add "mystery Wuhan pneumonia" to notifiable infectious diseases list Hong Kong SAR (China) Hong Kong SAR (China) announces that they will add "mystery Wuhan pneumonia" to a list of notifiable infectious diseases, allowing the authorities to place patients in quarantine. <i>South China Morning Post</i>		BORDER MEASURES Thailand implements screening of patients travelling from Wuhan Government of Thailand Thailand implements measures for screening patients travelling from Wuhan at four airports, and steps up surveillance at public and private hospitals. <i>Euro Surveillance, WHO</i>	04 Jan
COUNTRY					
REAL-TIME EVIDENCE					
RETROSPECTIVE EVIDENCE	SCIENCE Sampling at Huanan Seafood Market showed the virus was present in the environment, not in animals Joint WHO–China mission Published: 31 Jul 2020 Of 336 samples collected from animals at Huanan Seafood Market, none was positive by polymerase chain reaction (PCR) for SARS-CoV-2. 69 out of 842 environmental samples were positive by PCR for SARS-CoV-2. Three genetic sequences of SARS-CoV-2 from environmental samples at Huanan Seafood Market eventually were published on the Global Initiative on Sharing All Influenza Data. <i>WHO–Convended Global Study of the Origins of SARS-CoV-2</i>				

02 Jan, cont.

03 Jan

INTERNATIONAL	<p>04 Jan – 11:22 CST/04:22 CET</p> <p>REQUEST</p> <p>WHO WPRO requests more information; advises IHR state parties will be notified</p> <p>WHO WPRO</p> <p>WHO WPRO IHR Focal Point acknowledges the information received under Article 10 of IHR and requests more information from the Chinese National Focal Point. WHO WPRO advises that IHR state parties will be notified. The Focal Point replies one hour later.</p> <p><i>WHO internal documents</i></p>	<p>13:27 CST/06:27 CET</p> <p>ANNOUNCEMENT</p> <p>WHO WPRO tweets China has reported a cluster of PUO cases</p> <p>WHO WPRO</p> <p>"#China has reported to WHO regarding a cluster of pneumonia cases in Wuhan, Hubei Province. The Govt has also met with our country office, and updated @WHO on the situation. Govt actions to control the incident have been instituted and investigations into the cause are ongoing."</p> <p><i>WHO WPRO Twitter</i></p>	<p>04 Jan – 19:13 CET 05 Jan – 02:13 CST</p> <p>ANNOUNCEMENT</p> <p>WHO HQ tweets China has reported a cluster of pneumonia cases</p> <p>WHO HQ</p> <p>"#China has reported to WHO a cluster of #pneumonia cases –with no deaths– in Wuhan, Hubei Province. Investigations are underway to identify the cause of this illness."</p> <p><i>WHO Twitter</i></p>	<p>PUBLICATION</p> <p>WHO reports 44 cases in Disease Outbreak News</p> <p>WHO</p> <p>Based on Chinese data, WHO reports the 44 cases identified by 3 Jan. in Disease Outbreak News, and states that there is "no evidence of significant human-to-human transmission".</p> <p><i>WHO Disease Outbreak News</i></p>
	COUNTRY			<p>ANNOUNCEMENT</p> <p>Wuhan issues third public bulletin confirming 59 PUO cases</p> <p>Wuhan Municipal Health Commission Published: 5 Jan 2020</p> <p>Wuhan Municipal Health Commission issues a third bulletin, reporting 59 cases, seven in serious condition, no deaths. The bulletin reports that preliminary studies have not shown any sign of h-to-h transmission, and that no health care workers have been infected.</p> <p><i>Wuhan Municipal Health Commission, Center for Infectious Disease Research and Policy</i></p>
REAL-TIME EVIDENCE	<p>17:00 CST/10:00 CET</p> <p>CASES</p> <p>Wuhan issues second public bulletin confirming 44 PUO cases</p> <p>Wuhan Municipal Health Commission</p> <p>Wuhan Municipal Health Commission issues second public bulletin, confirming 44 PUO cases, of which 11 are severely ill and 33 are in stable condition.</p> <p><i>WHO</i></p>			
RETROSPECTIVE EVIDENCE	<p>03 Jan, cont.</p>			<p>05 Jan</p> <p>01 Jan–09 Jan 2020</p> <p>SCIENCE</p> <p>Re estimated at 3.54 in China</p> <p>Hao X, Chen S, et al. Published: 16 Jul 2020</p> <p>Re estimated at 3.54 (3.4–3.67) in China for the period 1 Jan.–9 Jan., suggesting rapid spread.</p> <p><i>Nature</i></p>



INTERNATIONAL	<p>REQUEST</p> <p>WHO requests detailed case information from China</p> <p>WHO</p> <p>WHO writes to the China IHR National Focal Point and requests urgent confirmation of the discovery of the novel coronavirus, and detailed information on its etiology, clinical presentation, additional laboratory findings, including sequencing, and the containment measures put in place.</p> <p><i>WHO internal documents</i></p>	<p>09–12 Jan 2020</p> <p>INTERIM GUIDANCE</p> <p>WHO issues a series of guidance tools</p> <p>WHO HQ Published: 9 Jan 2020</p> <p>WHO issues a series of guidance tools related to national capacities (9 Jan.), disease commodities (9 Jan.), infection prevention and control (10 Jan.), laboratory testing (10 Jan.), risk communication and community engagement (10 Jan.), surveillance case definitions (11 Jan.), and clinical management (12 Jan.).</p> <p><i>WHO guidance</i></p>	<p>ANNOUNCEMENT</p> <p>WHO announces China has identified new coronavirus</p> <p>WHO China</p> <p>"Chinese authorities have made a preliminary determination of a novel (or new) coronavirus, identified in a hospitalized person with pneumonia in Wuhan."</p> <p><i>WHO Statement, IHR Review Committee Report</i></p>	<p>PUBLICATION</p> <p>Risk for introduction to the EU considered low</p> <p>ECDC Published: 9 Jan 2020</p> <p>Three EU airports have direct flights to Wuhan. As there is no indication of h-to-h transmission and no cases detected outside Wuhan, the European Centre for Disease Prevention and Control (ECDC) considers the likelihood of introduction to the European Union (EU) to be low, but it can't be excluded.</p> <p><i>ECDC</i></p>
	COUNTRY			
REAL-TIME EVIDENCE	<p>NEWS REPORT</p> <p>Chinese scientists identify new coronavirus</p> <p>Published: 08 Jan 2020</p> <p>Ahead of anyone, the Wall Street Journal reports that Chinese scientists investigating a mystery illness that has sickened dozens in central China have discovered a new strain of coronavirus.</p> <p><i>Wall Street Journal</i></p>			
RETROSPECTIVE EVIDENCE	<p>NEWS REPORT</p> <p>Mayor of Wuhan reported to the People's Congress of Wuhan</p> <p>Published: 01 Feb 2020, updated 7 Feb 2020</p> <p>In his address to the People's Congress of Wuhan, the Mayor of Wuhan focused on new infrastructure, didn't mention the outbreak.</p> <p><i>NY Times</i></p>	<p>CASES</p> <p>Unobserved cases due to h-to-h transmission in China estimated to be 52,381</p> <p>Mizumoto K, Kagaya K, and Chowell G. Published: 2 Jun 2020</p> <p>Unobserved cases due to human-to-human transmission were estimated to be 52,381 from 8 Dec. 2019 to 9 Jan. 2020. R0 estimated to 2.37.</p> <p><i>International Journal of Infectious Disease</i></p>	<p>CASES</p> <p>First death occurs</p> <p>Wuhan Municipal Health Commission Published: 11 Jan 2020</p> <p>The first pandemic-related death occurred on 9 Jan. — a 61-year-old male with liver disease who frequented the Huanan Seafood Market. The immediate cause of death was respiratory and circulatory failure.</p> <p><i>Wuhan Municipal Health Commission, Bloomberg</i></p>	

07 Jan, cont.

08 Jan

09 Jan

	MEETING	REQUEST	MEETING	ADVICE	MEETING
INTERNATIONAL	WHO convenes global experts WHO WHO begins convening expert panels including clinicians and experts on diagnostics and laboratory guidance. <i>WHO internal documents, WHO Timeline</i>	WHO requests PCR primer and genome sequence The Executive Director of the WHO Health Emergencies Programme writes to China's National IHR Focal Point requesting China share the diagnostic PCR primer and full genome sequence. <i>IHR Review Committee Report</i>	First meeting of the STAG-IH WHO STAG-IH WHO Strategic and Technical Advisory Group for Infectious Hazards (STAG-IH) discusses the situation in Wuhan and provides a risk analysis. WHO convenes R&D experts as well. <i>WHO STAG-IH</i>	WHO recommends no specific health measures for travellers WHO HQ Published: 10 Jan 2020 WHO publishes advice for international travel and trade, recommends caution while traveling in or from Wuhan. Advises against travel or trade restrictions on China based on currently available information. <i>WHO HQ</i>	GCM for R&D Preparedness and Scientific Advisory Group of the R&D Blueprint hold first teleconference WHO The Global Coordination Mechanism for R&D Preparedness and the Scientific Advisory Group of the R&D Blueprint hold their first teleconferences on the novel coronavirus. <i>GCM teleconference meeting minutes, WHO timeline</i>
	COUNTRY		BORDER MEASURES Areas impose international travel screening and/or controls Various countries By 10 Jan., Hong Kong SAR (China), Japan, Macao SAR (China), Taiwan (China), Singapore, Turkmenistan, Viet Nam, Malaysia, and the Philippines all implement some border measures. <i>Our World in Data, Viet Nam, Malaysia, Philippines</i>		
REAL-TIME EVIDENCE					
RETROSPECTIVE EVIDENCE			R0 initially estimated at 2.2 in China Li Q, Guan X, et al. Published: 29 Jan 2020 Initial estimates of transmission dynamics in Wuhan indicated R0 to be 2.2 (1.4–3.9) and a doubling time of 7.4 days. <i>New England Journal of Medicine</i>	PCR diagnostic reagent developed and tested China CDC Published: 29 Jan 2020 PCR diagnostic reagent was developed and tested in China, allowing for accurate identification and diagnosis of SARS-CoV-2 infection. Reagent was distributed to Wuhan the next day. <i>New England Journal of Medicine, State Council Information Office of the People's Republic of China</i>	

09 Jan, cont.

10 Jan

SCIENCE 

SCIENCE 

PCR diagnostic reagent developed and tested
 China CDC
 Published: 29 Jan 2020
 PCR diagnostic reagent was developed and tested in China, allowing for accurate identification and diagnosis of SARS-CoV-2 infection. Reagent was distributed to Wuhan the next day.
New England Journal of Medicine, State Council Information Office of the People's Republic of China

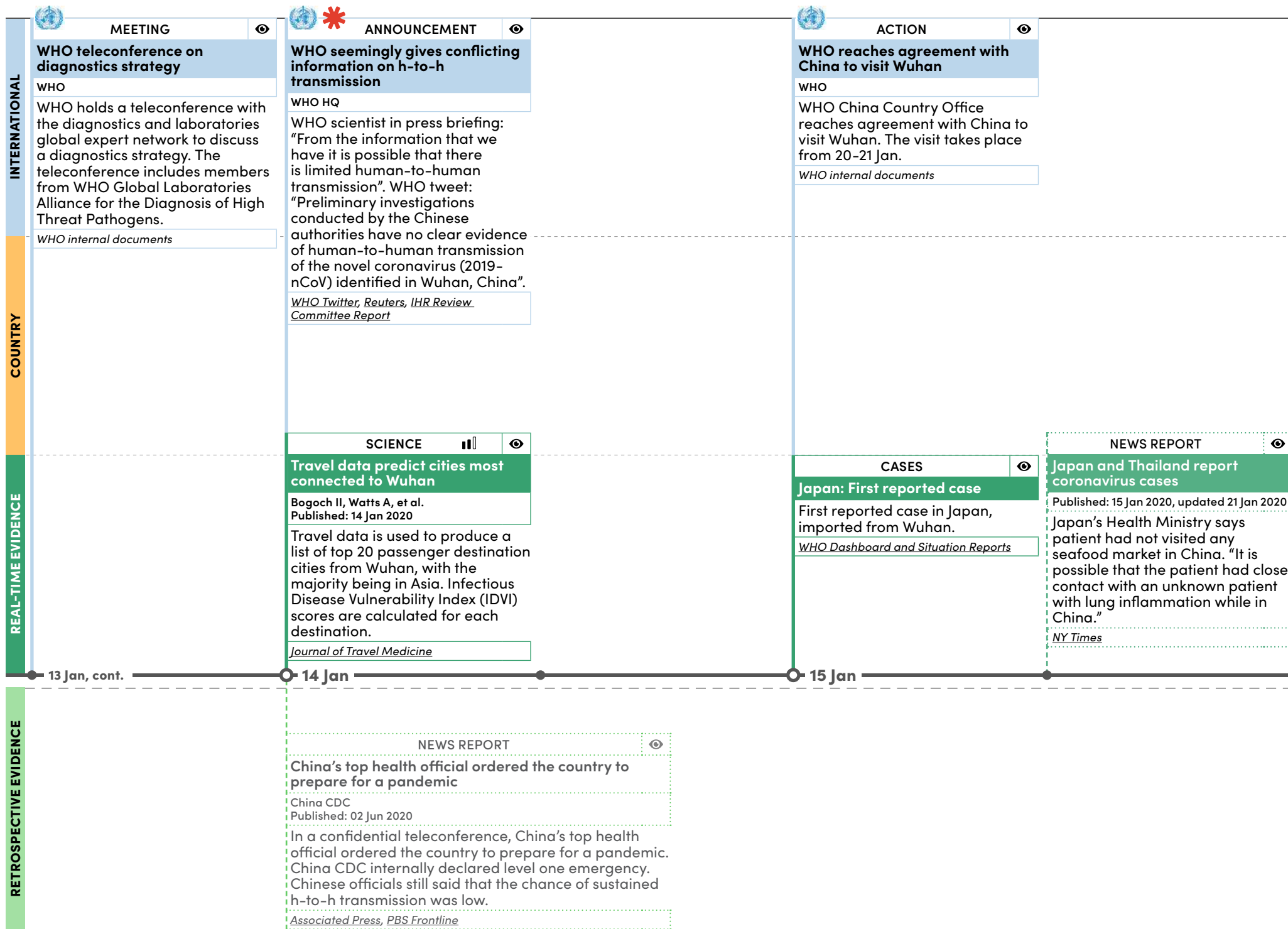
R0 initially estimated at 2.2 in China
 Li Q, Guan X, et al.
 Published: 29 Jan 2020
 Initial estimates of transmission dynamics in Wuhan indicated R0 to be 2.2 (1.4–3.9) and a doubling time of 7.4 days.
New England Journal of Medicine

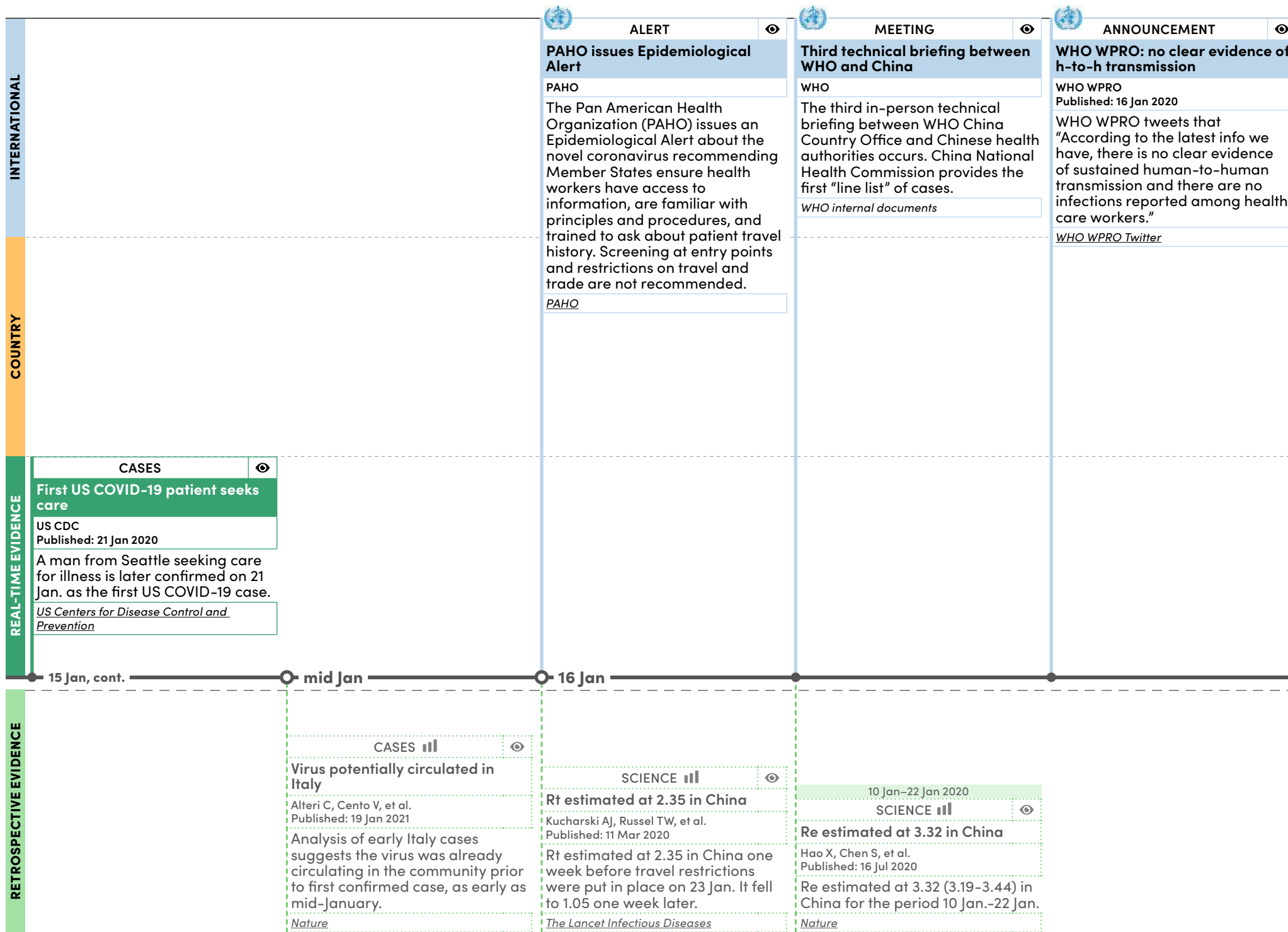
	MEETING	PUBLICATION	ACTION
INTERNATIONAL	<p>Second technical briefing between China and WHO</p> <p>WHO</p> <p>Second of three technical briefings between WHO China Country Office and the Chinese National Health Commission. The list of cases shared confirm there are cases not linked to the Huanan Seafood Market.</p> <p><i>WHO internal documents</i></p>	<p>WHO reports 41 cases and one death</p> <p>WHO</p> <p>Published: 12 Jan 2020</p> <p>WHO issues a Disease Outbreak News update, based on information from China's National Health Commission. It reads "WHO is reassured of the quality of the ongoing investigations and the response measures implemented in Wuhan.."</p> <p><i>WHO Disease Outbreak News</i></p>	<p>Scientists publish first protocol for RT-PCR test</p> <p>WHO</p> <p>Published: 13 Jan 2020</p> <p>WHO publishes the first protocol for a reverse transcription polymerase chain reaction (RT-PCR) assay for detection of the novel coronavirus, developed by partner laboratories.</p> <p><i>Charité Virology</i></p>
COUNTRY	<p>Wuhan reports 41 cases using updated case definition and the first death</p> <p>Wuhan Municipal Health Commission</p> <p>The Wuhan Municipal Health Commission publishes its fourth bulletin coinciding with the second technical briefing between China and WHO. The total number of cases is revised down to 41, based on a new case definition. The first death is reported. The bulletin also states that no new cases have been reported since 3 Jan., and "no clear evidence of human-to-human transmission" has been found.</p> <p><i>Wuhan Municipal Health Commission, WHO internal documents</i></p>	<p>Research consortium publishes draft genome</p> <p>Chinese researchers</p> <p>A consortium of researchers led by Professor Yong-Zhen Zhang from the Shanghai Public Health Clinical Center publishes a draft genome of the newly discovered coronavirus suspected of causing the outbreak on GenBank. The genome was submitted to GenBank on 5 Jan. (see retrospective entry on 5 Jan.).</p> <p><i>Science Magazine, Post by Edward Holmes, Caixin, Twitter</i></p>	<p>Thailand: First reported case</p> <p>First reported case in Thailand, imported from Wuhan (see retrospective entry on 12 Jan.).</p> <p><i>WHO Dashboard and Situation Reports</i></p>
REAL-TIME EVIDENCE			
RETROSPECTIVE EVIDENCE	<p>Crowds gather at Wuhan events</p> <p>Published: 01 Feb 2020</p> <p>Holiday shopping fairs and other events continued. Without clear government warnings, people kept travelling within and beyond China.</p> <p><i>Washington Post</i></p>	<p>First case outside China detected in Thailand</p> <p>Okada P, Buathong R, et al. Published: 27 Feb 2020</p> <p>Air traveler who arrived from Wuhan on 8 Jan. was identified through airport thermosurveillance and was diagnosed in hospital on 12 Jan. Virus was genetically identical to 30 Dec. strains in Wuhan.</p> <p><i>Euro Surveillance, IHR Review Committee Report</i></p>	<p>China: 1,723 estimated cases</p> <p>Estimated cases of COVID-19 were 1,723 based on data looking at probability of exportation.</p> <p><i>Imperial College</i></p>

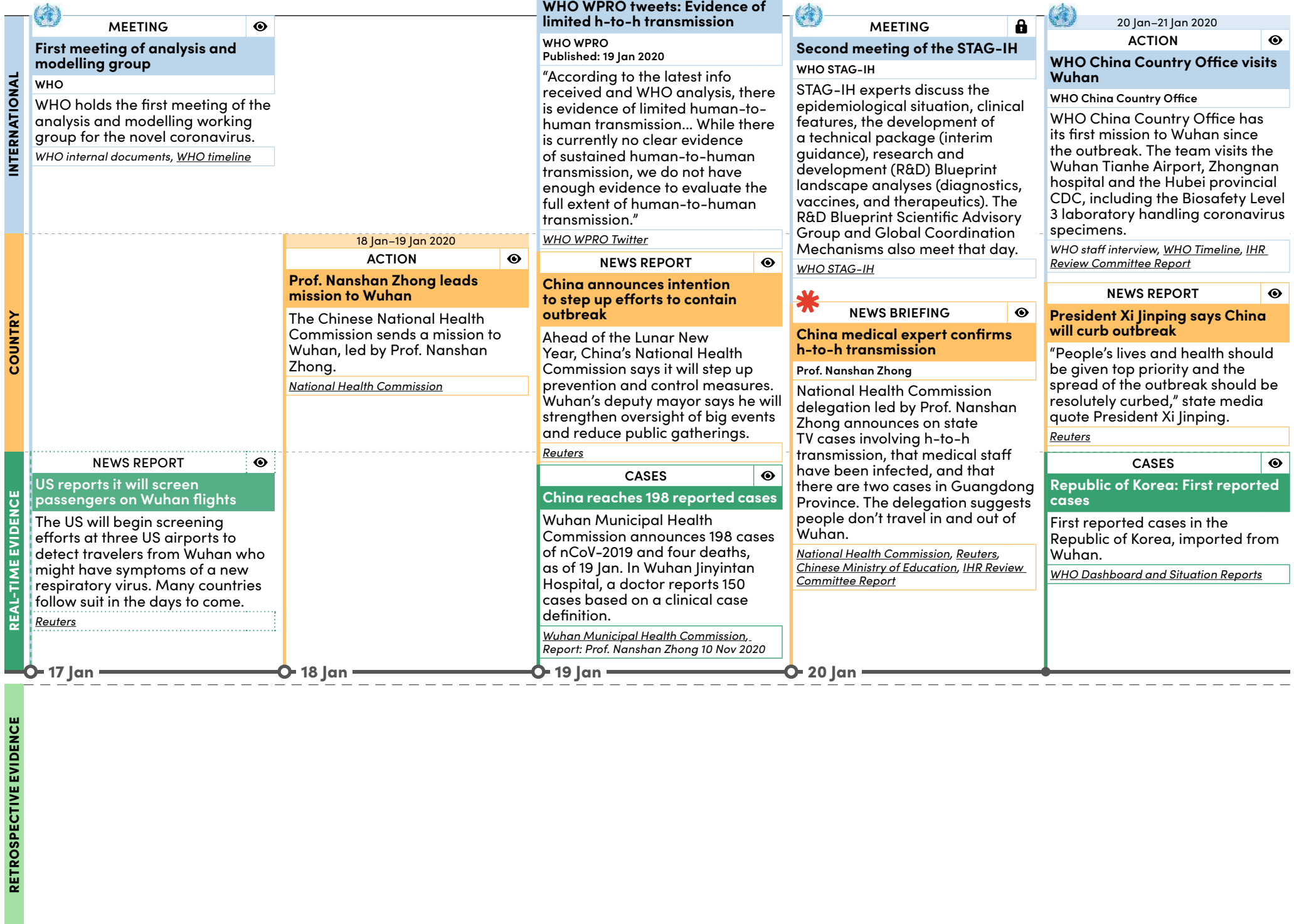
11 Jan


12 Jan

13 Jan







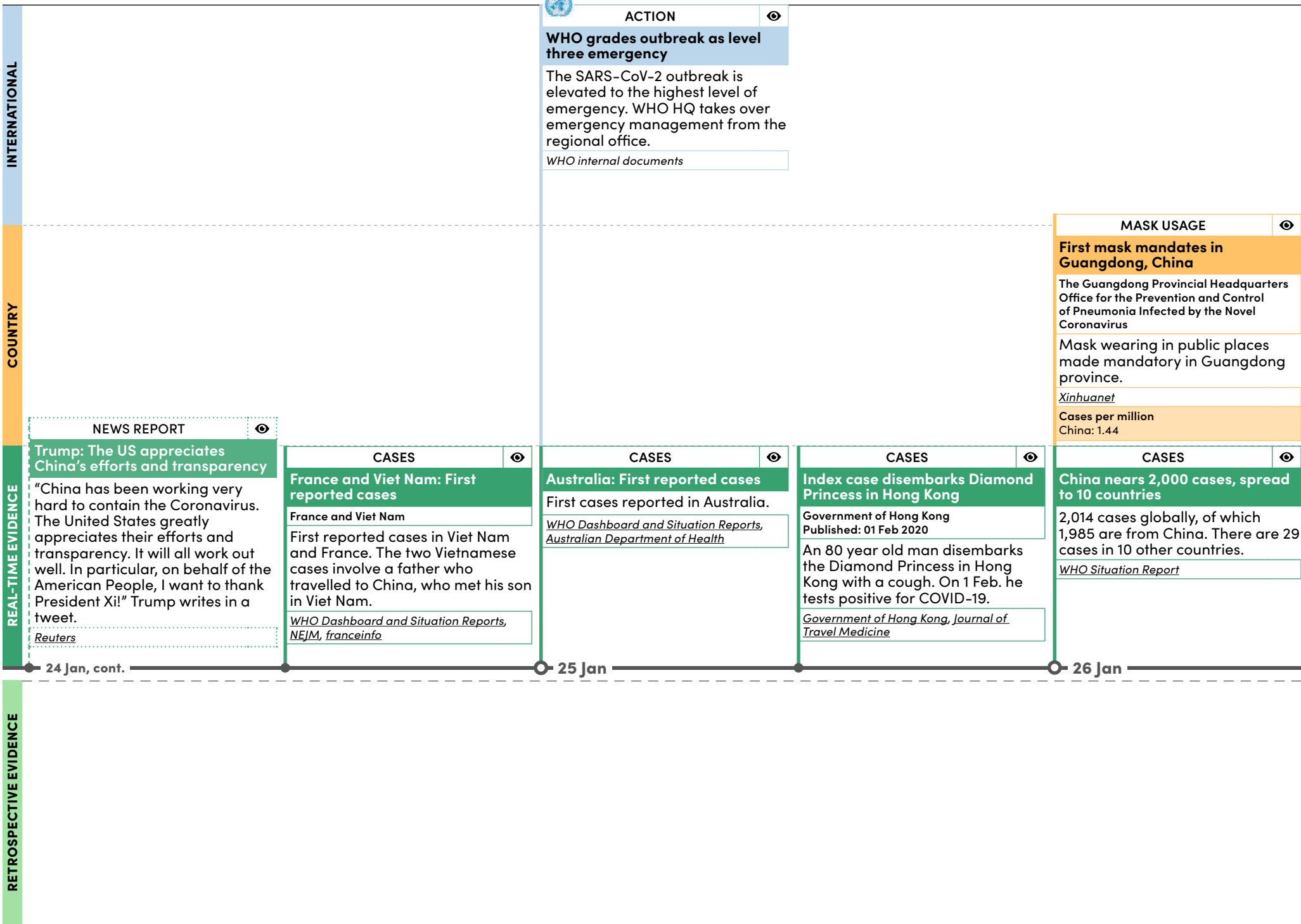
INTERNATIONAL	 ANNOUNCEMENT Clear evidence of h-to-h transmission according to WHO WPRO tweet WHO WPRO Published: 21 Jan 2020 “It is now very clear from the latest information that there is at least some human-to-human transmission of #nCoV2019. Infections among health care workers strengthen the evidence for this.” <i>WHO WPRO Tweet</i>				
COUNTRY	CONTACT TRACING Singapore implements comprehensive contact tracing Government of Singapore Singapore is the first country other than China in the Western Pacific Region (WPR) to implement comprehensive contact tracing. <i>Our World in Data</i>	SCHOOL CLOSURES China closes schools Ministry of Education China begins school closures. <i>EdSurge</i>			
REAL-TIME EVIDENCE	NEWS REPORT Risk to UK very low “Based on the available evidence, the current risk to the UK is very low,” says Dr. Nick Phin, deputy director of the National Infection Service (NIS). “We are... keeping the situation under constant review.” <i>Reuters</i>		NEWS REPORT WHO expects further spread “More cases should be expected in other parts of China and possibly other countries in the coming days,” says WHO spokesman Tarik Jasarevic. <i>Reuters</i>	CASES China: Cases spread to 14 provinces 309 cases are reported in China, spread across 14 provinces/ municipalities. <i>WHO Situation Report</i>	CASES Multiple medical staff in Wuhan infected Wuhan Municipal Health Commission Wuhan Municipal Health Commission reports 15 medical staff confirmed as cases of pneumonia caused by new coronavirus infection in Wuhan. <i>China Daily</i>
RETROSPECTIVE EVIDENCE					

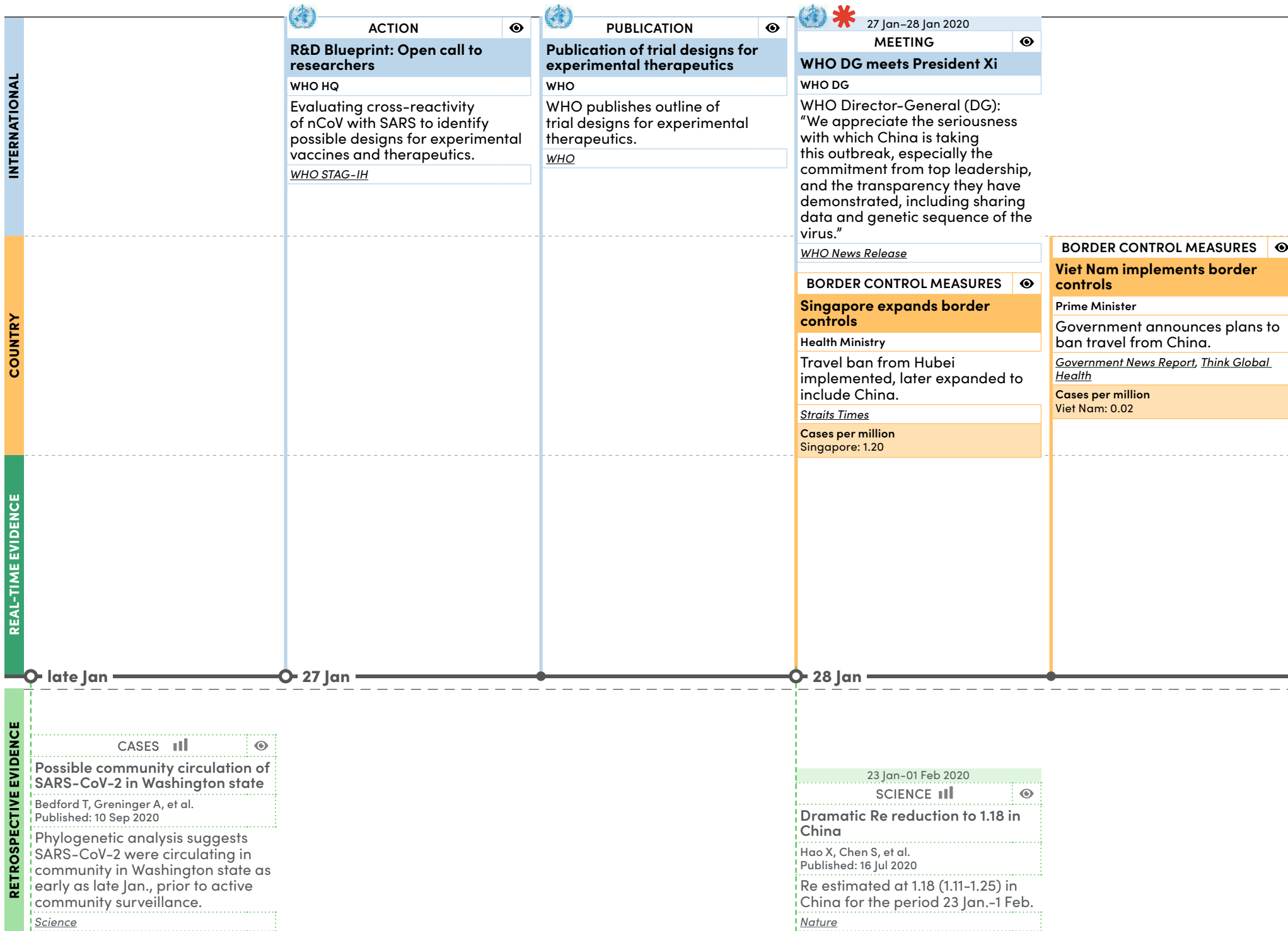
20 Jan, cont.

21 Jan

INTERNATIONAL	<div style="display: flex; justify-content: space-between;"> 22 Jan–23 Jan 2020 22 Jan–23 Jan 2020 </div> <div style="display: flex; justify-content: space-between;"> MEETING MEETING </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <p>WHO's IHR Emergency Committee starts first meeting</p> <p>WHO</p> <p>WHO's IHR Emergency Committee starts its first COVID-19-related meeting. On this day, WHO reports 314 cases, with 310 cases in 14 provinces and municipalities within China, and four confirmed cases in three countries outside China, all with direct connections to Wuhan.</p> <p>IHR Committee Statement, WHO Situation Report</p> </div> <div style="width: 30%;"> <p>WHO's IHR Emergency Committee ends meeting. No PHEIC declared</p> <p>WHO</p> <p>The IHR Emergency Committee does not recommend the outbreak a Public Health Emergency of International Concern (PHEIC), but urges countries to be prepared for additional spread. The Committee agrees to meet again within 10 days. By this day, cases have increased to 581, with 571 cases in 24 provinces and municipalities within China, and 10 cases in four countries outside China, all connected to Wuhan.</p> <p>IHR Committee Statement, WHO Situation Report</p> </div> <div style="width: 30%;"> <p>LOCKDOWN/ STAY-AT-HOME MEASURES</p> <p>First lockdown in Wuhan</p> <p>Chinese Centre for Disease Control and Prevention</p> <p>Lockdown initiated in Wuhan.</p> <p>China CDC</p> <p>Cases per million China: 0.45</p> </div> </div>		
	COUNTRY	<p>CONTACT TRACING</p> <p>Germany implements comprehensive contact tracing</p> <p>Government of Germany</p> <p>Germany is the first country in the WHO European Region (EUR) to implement comprehensive contact tracing.</p> <p>Our World in Data</p>	<p>CONTACT TRACING</p> <p>Costa Rica introduces comprehensive contact tracing</p> <p>Government of Costa Rica</p> <p>Contact tracing for all COVID-19 cases is introduced in Costa Rica, the first country in the WHO Region of the Americas (AMR) to do so.</p> <p>Our World in Data</p>
REAL-TIME EVIDENCE		<p>NEWS REPORT</p> <p>China reports 15 samples from Huanan Seafood Market contain virus</p> <p>Published: 22 Jan 2020</p> <p>It is unclear whether the virus is shed by humans or animals. Chinese scientists publish the genetic sequence from some samples, but the information provides no clues to the virus' origins.</p> <p>China CDC, NY Times</p>	
	RETROSPECTIVE EVIDENCE		

INTERNATIONAL		PUBLICATION	ADVICE	MEETING
		Molecular assays to diagnose COVID-19 WHO HQ Published: 24 Jan 2020 WHO publishes an overview of assays that have applied to Foundation for Innovative New Diagnostics for participation in its assay assessment work. <i>WHO HQ</i>	WHO recommends no restrictions on international traffic WHO Published: 24 Jan 2020 WHO updates advice for international traffic, recommending against restrictions, but supporting airport exit screening and suggesting possible entry screening. <i>WHO</i>	Informal consultation on therapeutics WHO HQ Published: 24 Jan 2020 WHO R&D Blueprint initiates an informal consultation on prioritization of candidate therapeutic agents for use in novel coronavirus 2019 infection. <i>WHO HQ</i>
COUNTRY	BORDER MEASURES	CONTACT TRACING	Jan 24: Key scientific articles published in the Lancet	
	21 countries/areas have international screening in place National governments Officials across the globe from Africa to South America begin containment measures. <i>Our World in Data</i>	Nepal introduces comprehensive contact tracing Government of Nepal Contact tracing for all cases of COVID-19 introduced in Nepal, the first country in SEAR to do so. <i>Our World in Data</i>	SCIENCE	SCIENCE
REAL-TIME EVIDENCE			Clinical characteristics, severity, and mortality published Huang C, Wang Y, et al. Common symptoms: cough, fever, short breath, and myalgias. Approximately 17–42% developed acute respiratory distress syndrome, 23–32% admitted to intensive care units, and 11–15% died. Of the 41 first laboratory-confirmed patients 27/41(66%) were found to be exposed to Huanan Seafood Market. <i>The Lancet</i>	Family cluster suggests h-to-h transmission and asymptomatic infection Chan JF-W, Yuan S, et al. Study describes a family cluster where h-to-h transmission and asymptomatic infection is documented. <i>The Lancet</i>
RETROSPECTIVE EVIDENCE	CASES Vast majority of early infections in China undetected Li R, Pei S, et al. Published: 16 Mar 2020 Researchers estimate that 86% of all infections were undetected prior to the lockdown of Wuhan on 23 Jan., leading to rapid spread. <i>Science</i>	CASES Travel restrictions in China significantly reduced spread Wells CR, Sah P, et al. Published: 13 Mar 2020 Researchers estimate that travel restrictions enacted in China after 23 Jan. reduced the average daily rate of case exportations by 81.3%. <i>PNAS</i>	“Because of the pandemic potential of 2019-nCoV, careful surveillance is essential to monitor its future host adaption, viral evolution, infectivity, transmissibility, and pathogenicity.”	

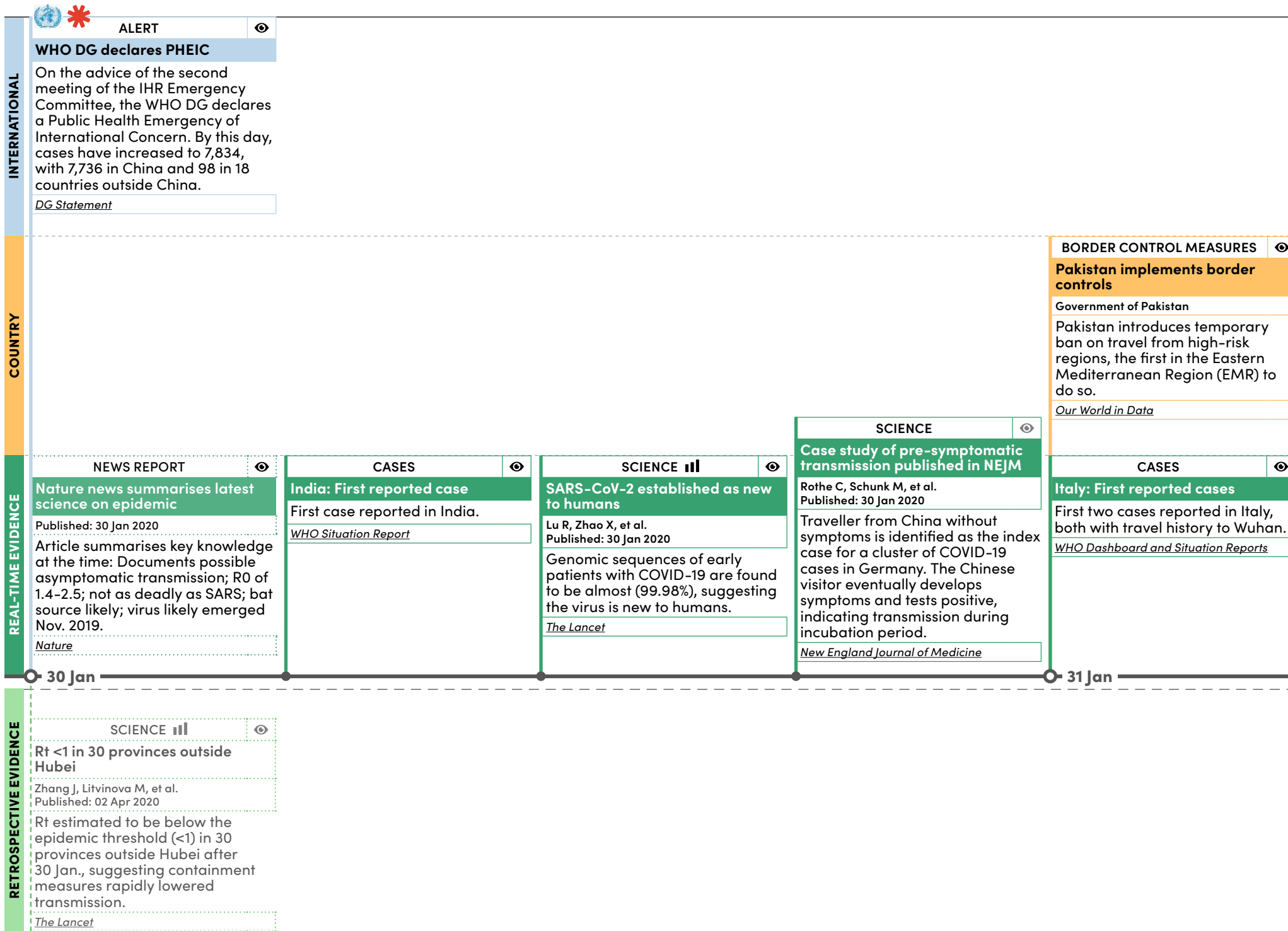

















INTERNATIONAL	<p>MEETING </p> <p>Third meeting of the STAG-IH</p> <p>WHO STAG-IH</p> <p>STAG-IH discusses briefings on Strategic Response Plan, and R&D Update-Global Research and Innovation meeting.</p> <p>WHO</p>	<p>NEWS BRIEFING </p> <p>WHO DG updates on his visit to China</p> <p>WHO DG</p> <p>“China’s efforts to contain the outbreak at the epicentre have been essential for preventing the further spread of the virus.”</p> <p>DG Press Briefing</p>	<p>INTERIM GUIDANCE </p> <p>Interim guidance on the use of masks</p> <p>WHO HQ</p> <p>Published: 29 Jan 2020</p> <p>Wearing a medical mask is one of the prevention measures to limit spread of certain respiratory diseases, including 2019-nCoV, during home care and in health care settings.</p> <p>WHO HQ</p>	<p>MEETING </p> <p>First meeting of PSCN</p> <p>Pandemic Supply Chain Network</p> <p>The Pandemic Supply Chain Network (PSCN), created by WHO in collaboration with the World Economic Forum, holds its first meeting to develop a market capacity and risk assessment for personal protective equipment (PPE).</p> <p>WHO Situation Report</p>
	<p>BORDER CONTROL MEASURES </p> <p>Georgia implements border controls</p> <p>Government of Georgia</p> <p>Georgia implements travel ban from high-risk regions, the first in EUR to do so.</p> <p>Our World in Data</p> <p>Cases per million</p> <p>Georgia: 0.251</p>			
COUNTRY				
REAL-TIME EVIDENCE	<p>CASES </p> <p>China reaches 6,000 cases, spread to 15 countries</p> <p>6,065 cases globally, of which 5,997 are from China. 68 cases reported outside China, in 15 countries.</p> <p>WHO Situation Report</p>	<p>CASES </p> <p>United Arab Emirates: First reported cases</p> <p>WHO</p> <p>Published: 29 Jan 2020</p> <p>Four cases reported in the United Arab Emirates in air travelers arriving from Wuhan.</p> <p>WHO Situation Report</p>	<p>SCIENCE </p> <p>Bat coronavirus likely ancestor of SARS-CoV-2</p> <p>Paraskevis D, Kostaki EG, et al.</p> <p>Published: 29 Jan 2020</p> <p>A bat coronavirus is found to share 96.3% of its genome with SARS-CoV-2.</p> <p>Infection, Genetics and Evolution, Nature</p>	<p>CASES </p> <p>Study of first 425 Wuhan cases published in NEJM</p> <p>Li Q, Guan X, et al.</p> <p>Published: 29 Jan 2020</p> <p>Study of first 425 lab-confirmed cases in Wuhan demonstrates epidemiological characteristics of the disease. Confirms h-to-h transmission since mid-Dec. Supports 14 day quarantine period for those exposed.</p> <p>New England Journal of Medicine</p>
RETROSPECTIVE EVIDENCE	<p>SCIENCE </p> <p>Diagnostic reagent provided across China</p> <p>Chinese CDC</p> <p>Published: 26 Mar 2020</p> <p>Diagnostic tests made widely available in all China’s provinces.</p> <p>New England Journal of Medicine</p>			









28 Jan, cont.

29 Jan

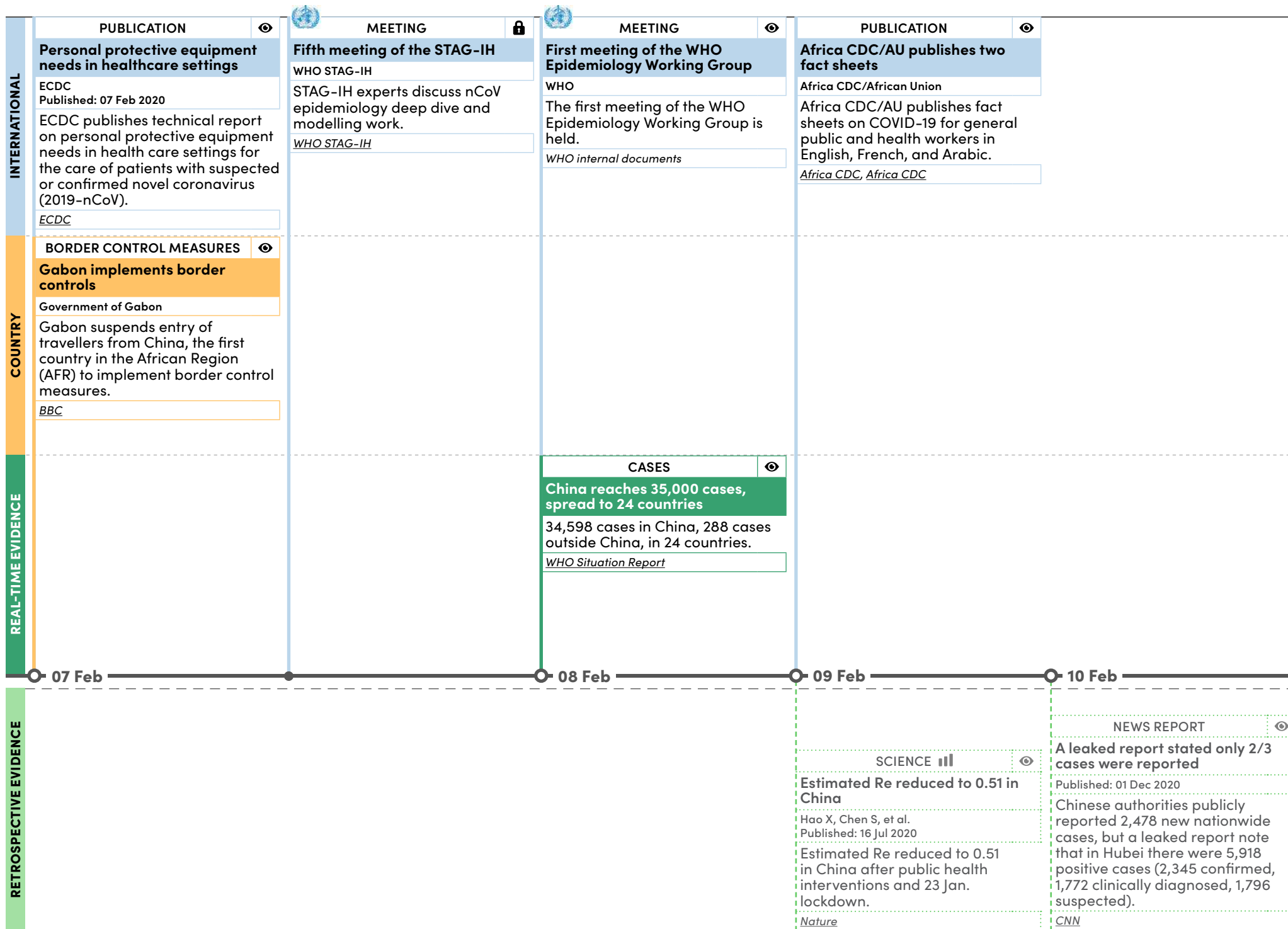


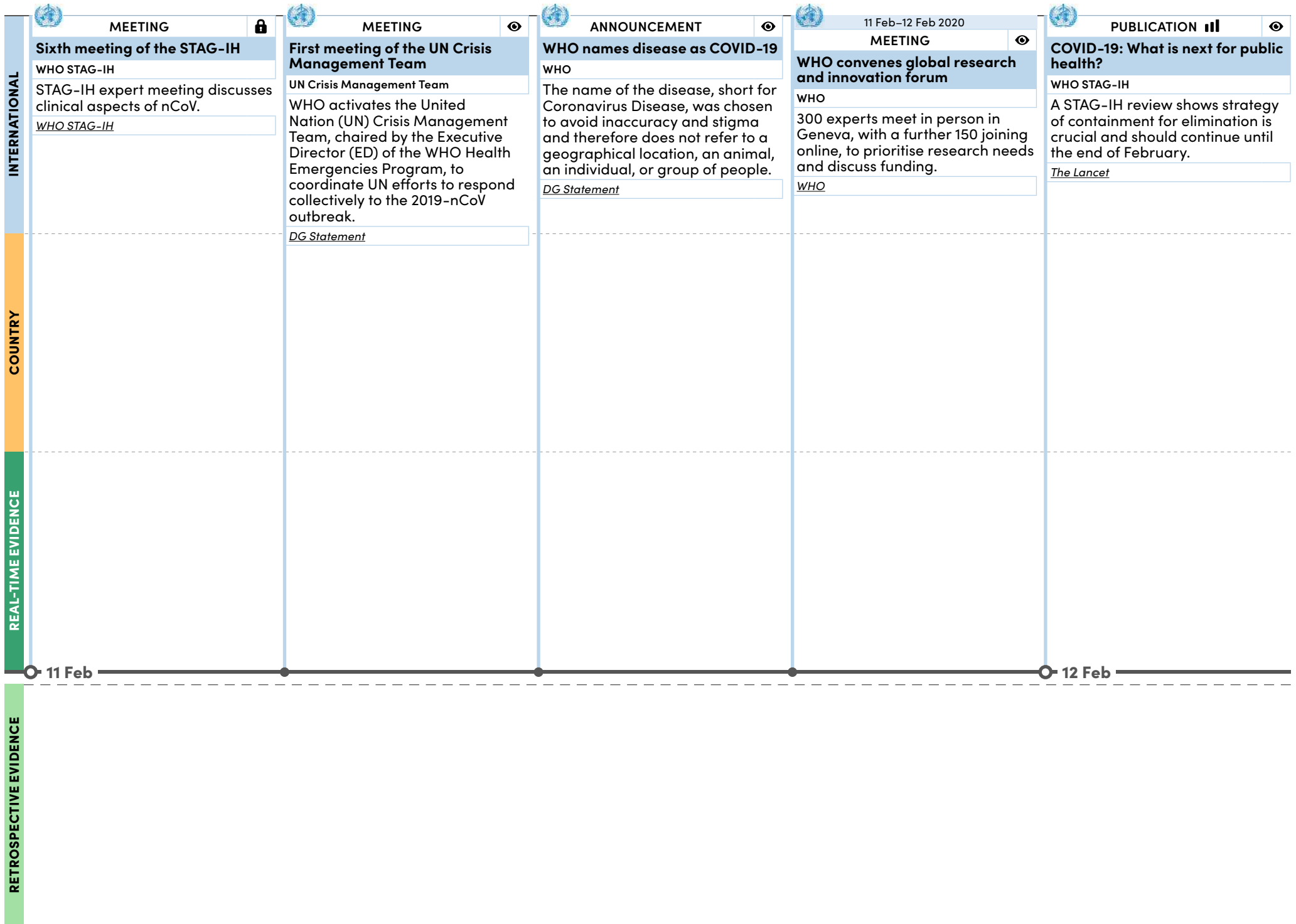
INTERNATIONAL				 ACTION 			
				WHO ships first PCR-based diagnostic tests			
				WHO The first consignment of validated PCR-based diagnostic tests is shipped by WHO from Germany to countries and WHO Regional Offices. <i>WHO internal documents</i>			
COUNTRY	BORDER CONTROL MEASURES  Two countries implement border controls Governments of El Salvador and Jamaica Jamaica bans travel from China. El Salvador implements travel restrictions for high-risk countries, the first country in AMR to do so. <i>Jamaica, El Salvador</i>	SCHOOL CLOSURES  Viet Nam closes schools Government of Viet Nam Government of Viet Nam mandates that all schools should remain closed after Lunar New Year holiday. <i>Our World in Data</i>	DECLARATION OF EMERGENCY  Viet Nam declares national epidemic Prime Minister Viet Nam declares a national epidemic. <i>Hanoi Times</i> Cases per million Viet Nam: 0.06	CONTACT TRACING  Saudi Arabia implements comprehensive contact tracing Government of Saudi Arabia Contact tracing for all cases of COVID-19 introduced in Saudi Arabia, the first in EMR to do so. <i>Our World in Data</i>	BORDER CONTROL MEASURES  Fiji implements border controls Government of Fiji Travel from China banned for all foreigners. <i>Fiji Sun</i> Cases per million Fiji: 0.00		
	 SCIENCE   Scientists forecast global pandemic Wu JT, Leung K, Leung G Published: 31 Jan 2020 Researchers estimate 75,815 cases in Wuhan, forecast exponential growth in major Chinese cities and global spread, calling for preparedness plans. <i>The Lancet</i>				NEWS REPORT  NY Times publishes account of events before Wuhan lockdown Published: 01 Feb 2020 The NY Times publishes an account of events leading up to the lockdown in Wuhan. This includes early suspicions of the possibility of h-to-h transmission. The article also outlines ways in which people felt Wuhan authorities underplayed the severity of the outbreak, and would have liked to see more transparency. <i>NY Times</i>	CASES  China surpasses 10,000 cases, spread to 23 countries 11,821 cases in China, 132 cases outside China, in 23 countries. <i>WHO Situation Report</i>	CASES  First reported death outside China Published: 02 Feb 2020 The first death outside China is reported in the Philippines. <i>WHO Situation Report</i>
				REAL-TIME EVIDENCE			

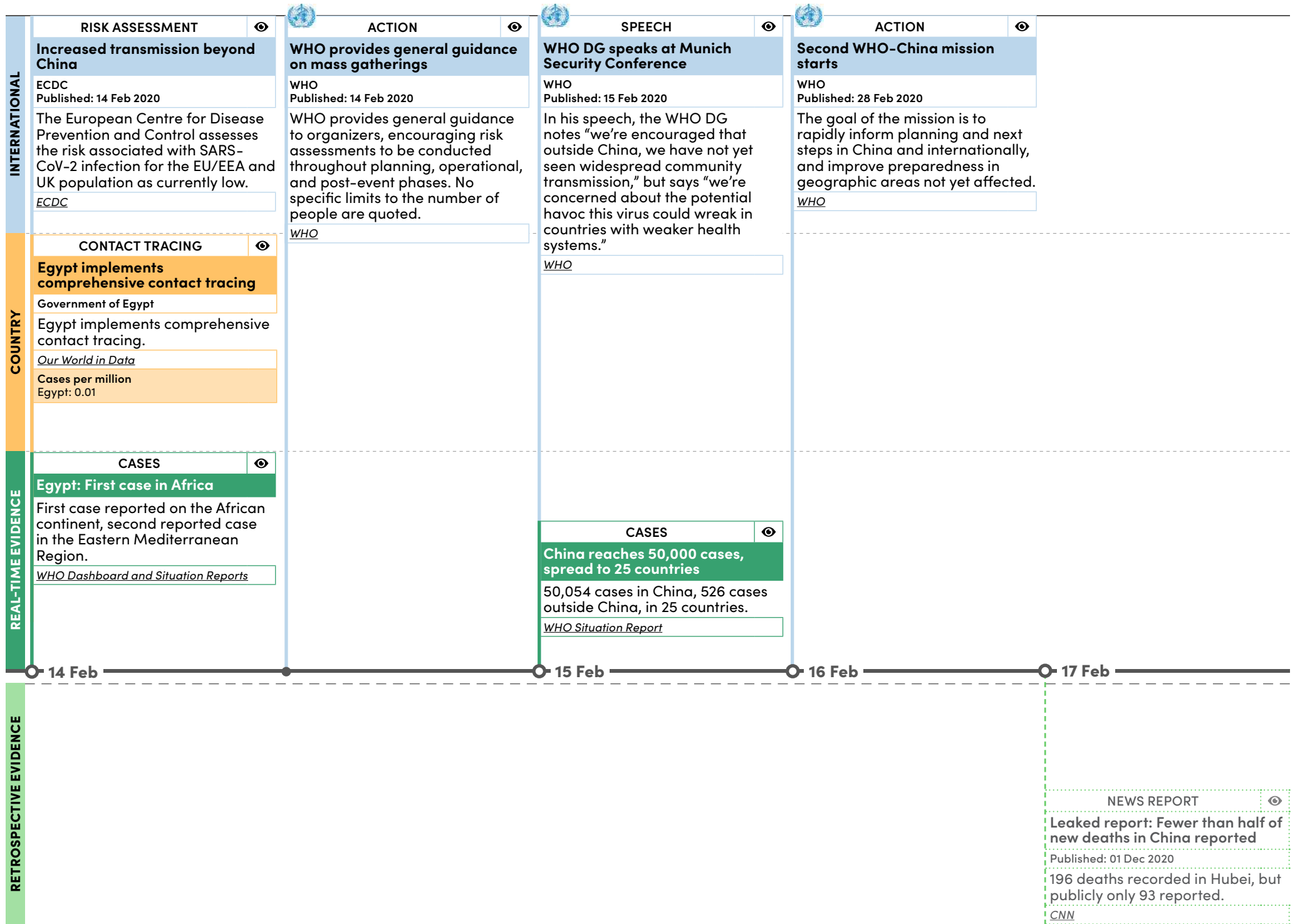
RETROSPECTIVE EVIDENCE	 NEWS REPORT  WHO Representative to China holds video briefing with diplomats Published: 02 Apr 20 On the video briefing, WHO's representative to China "praised the Chinese...response. Then he went a step further, calling on other countries not to step out of line with the WHO recommendations..." <i>Globe and Mail</i>
	31 Jan, cont. 01 Feb 02 Feb

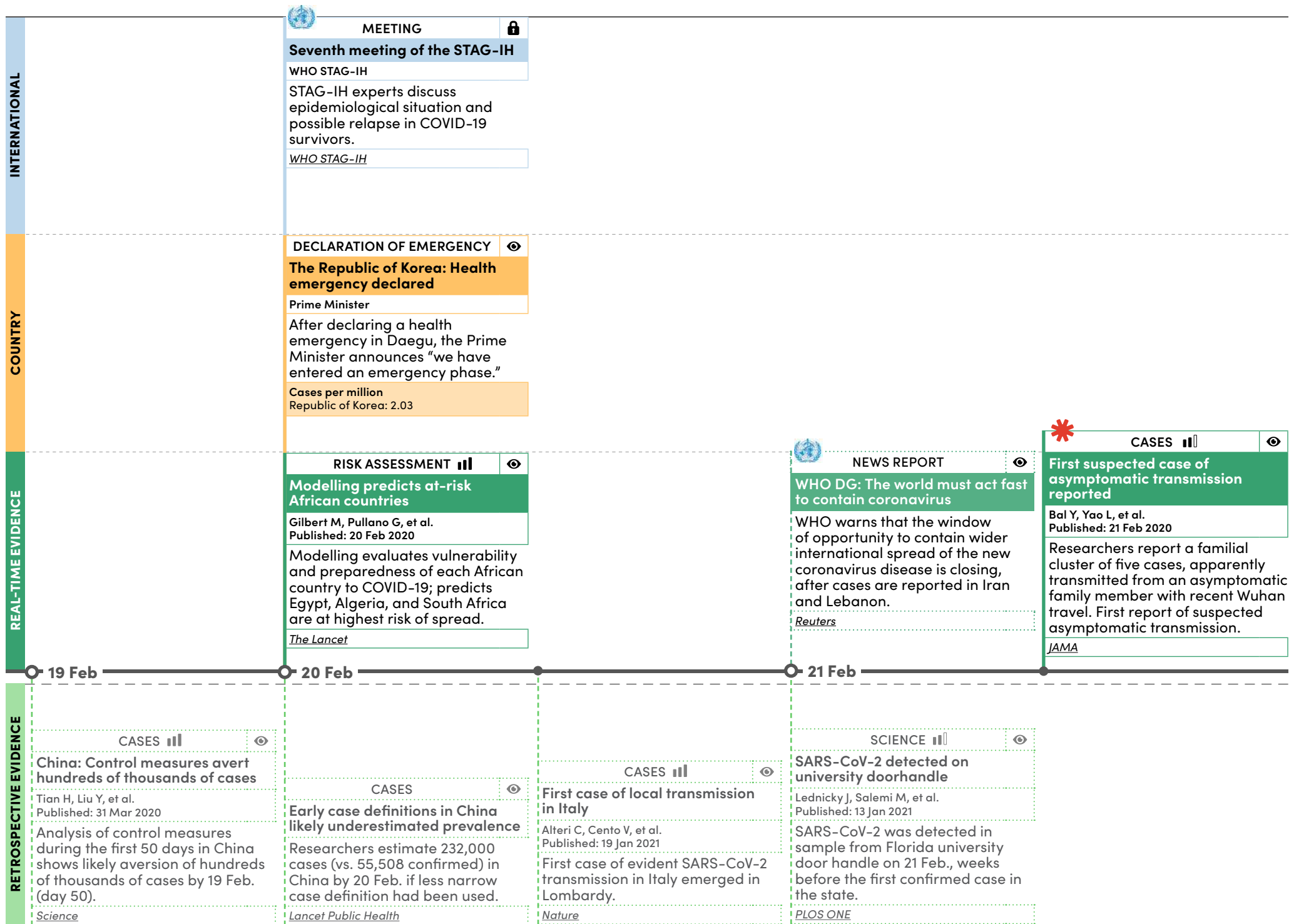
INTERNATIONAL			 MEETING 	ACTION 	
			WHO DG gives speech at WHO EB meeting WHO DG WHO DG begins reporting on the COVID-19 PHEIC from paragraph 53 of his remarks. The DG also quotes President Xi Jinping, who during the DG’s visit to Beijing said: “We will take serious measures at the epicentre, at the source, in order to protect our people, and also to prevent the spread of the virus to other countries.” WHO	Africa CDC establishes continent-wide task force Africa CDC Published: 05 Feb 2020 Africa CDC inaugurates Africa Task Force for Novel Coronavirus (AFCOR); as of yet no cases confirmed in Africa. Africa CDC	
COUNTRY	BORDER CONTROL MEASURES 	BORDER CONTROL MEASURES 			
	The US implements border controls US President Presidential proclamation issued suspending entry into the US of “aliens” who had been in China in the preceding 14 days. Presidential Proclamation Cases per million United States: 0.03	New Zealand bans Chinese travellers and boosts border screening Government of New Zealand Restrictions put in place preventing “foreign nationals from or transiting through mainland China from entering New Zealand.” The Guardian			
REAL-TIME EVIDENCE			ACTION 	SCIENCE  	
			Diamond Princess anchors at Yokohama Diamond Princess The Diamond Princess cruise ship, with 2,666 passengers and 1,045 crew members, quarantines off Yokohama port after a 14 day journey to Hong Kong, Viet Nam, and Taiwan. Disaster Medicine and Public Health Preparedness	Bat coronavirus is possible early progenitor Zhou P, Yang X-L, et al. Published: 03 Feb 2020 At the whole genome level, the RaTG13 bat coronavirus from Yunnan province is 96% concordant with the SARS-CoV-2 genome. Nature	
RETROSPECTIVE EVIDENCE	02 Feb, cont.		03 Feb		

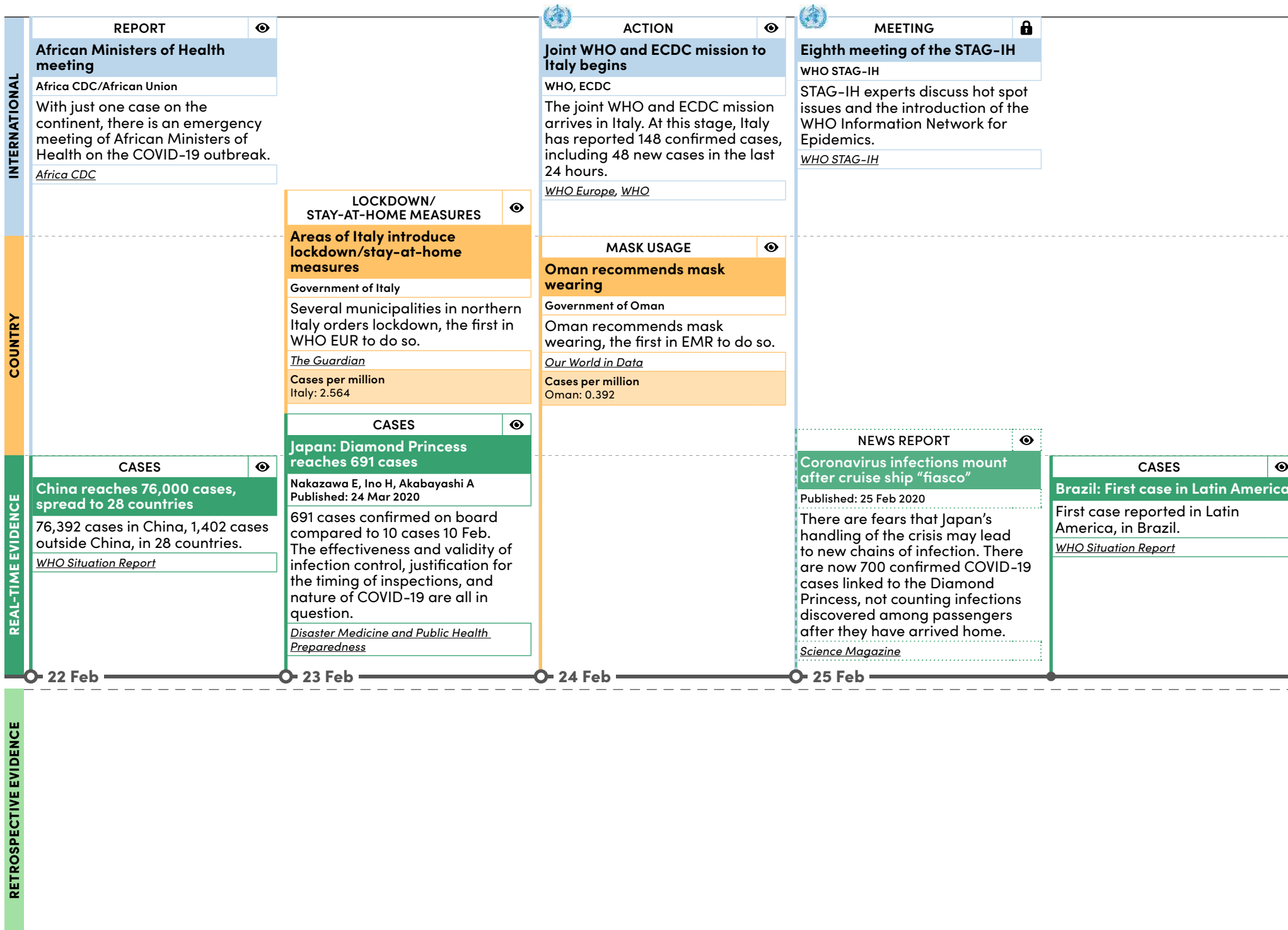
	MEETING	PUBLICATION	MEETING	ACTION	
INTERNATIONAL	WHO holds technical briefing on COVID-19 at WHO EB meeting WHO DG The WHO DG underlines that “99% of the cases are in China and 97% of the deaths are in Hubei Province.” Nonetheless, he says, “Now is the moment for all countries to be preparing themselves” and notes that WHO has begun distributing supplies to 24 countries. He also urges countries to share data, saying WHO has received complete case report forms for only 38% of 176 cases outside China, including from high-income countries. He asks countries not to impose restrictions that are “inconsistent with the International Health Regulations,” noting that 22 countries already have done so. WHO	Strategic preparedness and response plan WHO HQ Published: 04 Feb 2020 WHO publishes COVID-19 strategic preparedness and response plan outlining public health measures for the international community. The 2019_nCoV Simulation Exercise to enhance national preparedness efforts is also made available online. WHO HQ	Fourth meeting of the STAG-IH WHO STAG-IH STAG-IH experts review WHO response strategy and discuss ‘strategy switch.’ WHO STAG-IH	WHO DG begins daily media briefings WHO Published: 05 Feb 2020 WHO DG begins daily media briefings to provide updates on the COVID-19 pandemic, clarify public health measures, and encourage action. WHO	
	COUNTRY	BORDER CONTROL MEASURES The Republic of Korea issues border measures Ministry of Health and Welfare Special entry procedures applied for all travelers from China. Ministry of Health News Release Cases per million Republic of Korea: 0.31			CONTACT TRACING Sri Lanka implements comprehensive contact tracing Government of Sri Lanka Sri Lanka implements comprehensive contact tracing. Our World in Data Cases per million Sri Lanka: 0.05
REAL-TIME EVIDENCE	NEWS REPORT WHO calls for improved data sharing Published: 04 Feb 2020 WHO DG urges all health ministers to improve data sharing on coronavirus immediately and says he will send a team of international experts to work with Chinese counterparts. Reuters				NEWS REPORT Chinese ambassador: UK overreacted to coronavirus Published: 06 Feb 2020 Britain’s advice to its nationals to leave China because of outbreak in Hubei was an overreaction, the Chinese ambassador to London says. “We asked them to take the advice of the WHO to make a reasonable response. Do not overreact.” Reuters
RETROSPECTIVE EVIDENCE	04 Feb		05 Feb		06 Feb

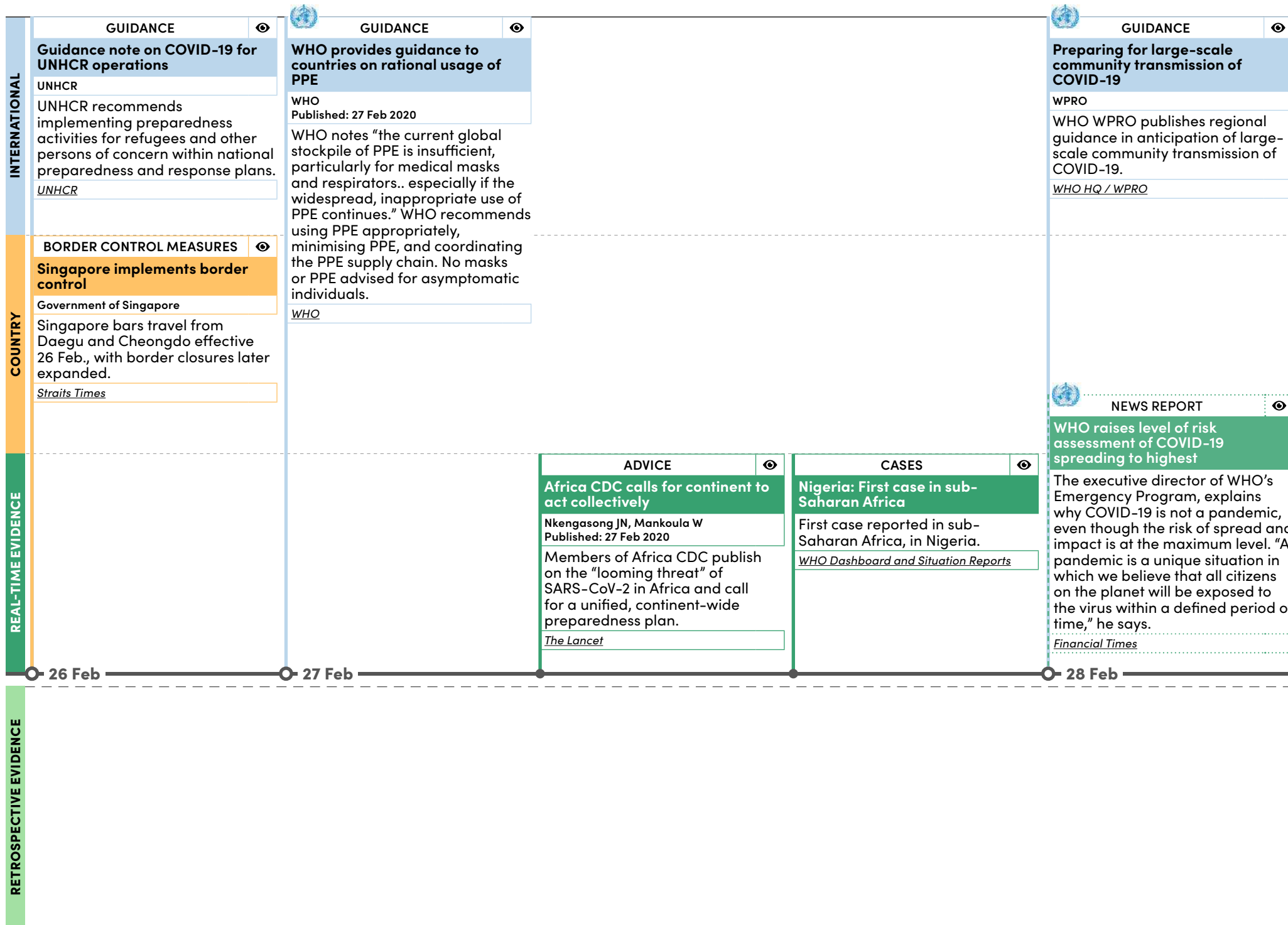


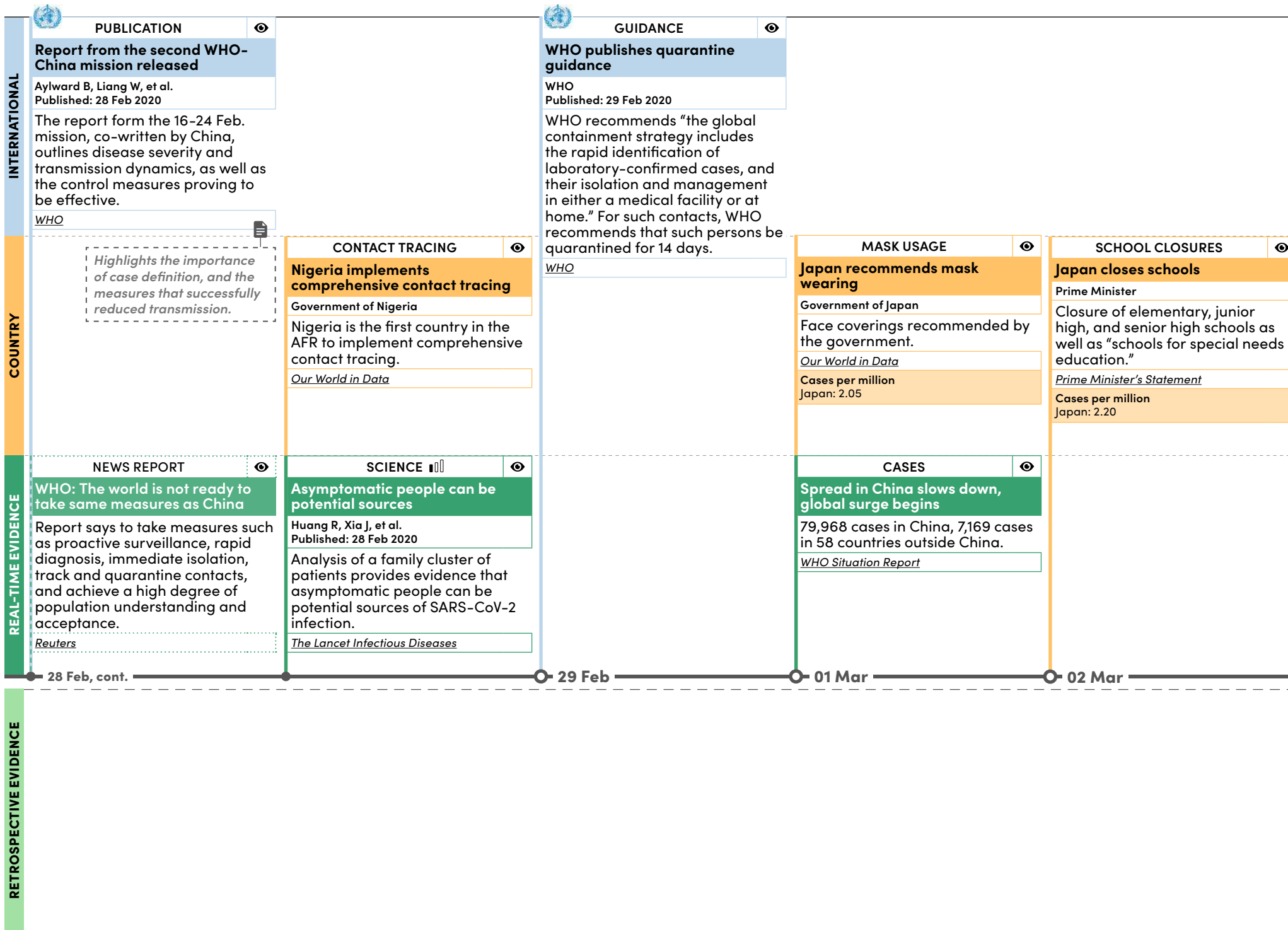


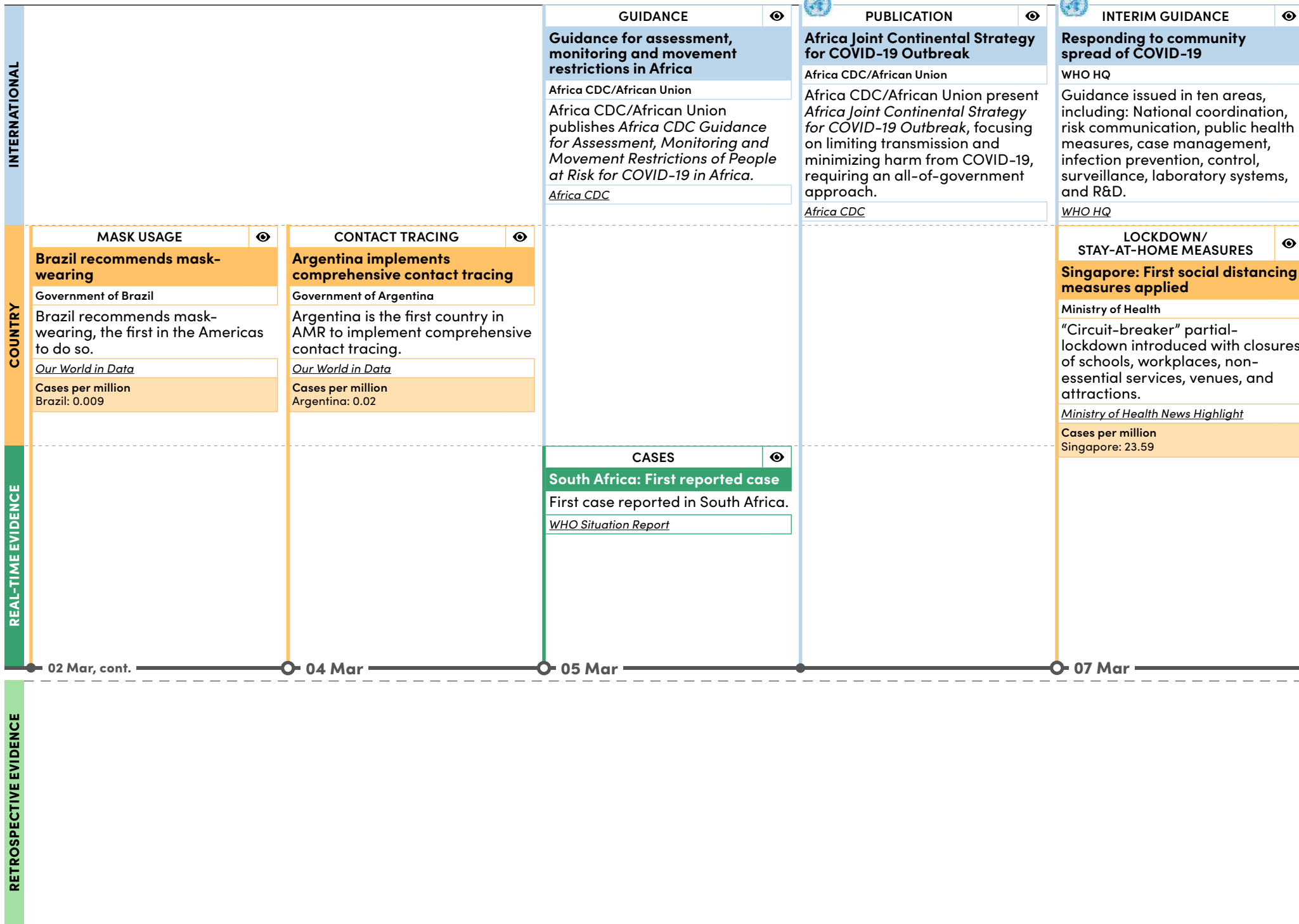


















INTERNATIONAL	<p>ANNOUNCEMENT</p> <p>GPMB calls for \$8 billion and for G7 and G20 leadership</p> <p>GPMB Published: 09 Mar 2020</p> <p>The Global Preparedness and Monitoring Board (GPMB) calls for an immediate injection of USD 8 billion for the COVID-19 response, and for G7 and G20 leaders to meet.</p> <p><i>GPMB</i></p>	<p>GUIDANCE</p> <p>COVID-19 prevention and control in schools</p> <p>UNICEF, WHO, IFRC</p> <p>UNICEF, WHO, and the International Federation of Red Cross and Red Crescent Societies (IFRC) publish joint paper on key messages and actions for COVID-19 prevention and control in schools.</p> <p><i>UNICEF, WHO, IFRC</i></p>	<p>ANNOUNCEMENT</p> <p>WHO DG announces pandemic</p> <p>WHO DG</p> <p>WHO DG announces pandemic: “WHO has been assessing this outbreak around the clock and we are deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction. We have therefore made the assessment that COVID-19 can be characterized as a pandemic”.</p> <p><i>WHO DG Speech</i></p>
	<p>COUNTRY</p> <p>MASK USAGE</p> <p>India issues mask guidance</p> <p>Ministry of Health and Family Welfare</p> <p>India issues guidance outlining where masks should be worn.</p> <p><i>Government Guidelines</i></p> <p>Cases per million India: 0.03</p>	<p>LOCKDOWN/ STAY-AT-HOME MEASURES</p> <p>Italy imposes first national lockdown</p> <p>Italy Published: 10 Mar 2020</p> <p>Expanding on previous local restrictions, Italy announces first nationwide lockdown in an effort to contain spread of COVID-19.</p> <p><i>Washington Post</i></p>	<p>SCHOOL CLOSURES</p> <p>Four countries implement school closures</p> <p>Various countries</p> <p>Pakistan, Peru, Sri Lanka, and the US implement various levels and types of school closures this week.</p> <p><i>Pakistan, Peru, Sri Lanka, United States</i></p> <p>Cases per million Pakistan: 0.14 Peru: 0.33 Sri Lanka: 0.28 United States: 4.79</p>
REAL-TIME EVIDENCE	<p>CASES</p> <p>Spread to 101 countries, cases outside China approach 25,000</p> <p>80,859 cases in China, 24,727 cases outside China, in 101 countries.</p> <p><i>WHO Situation Report</i></p>	<p>CASES</p> <p>Italy: Highest case number outside China (9,172)</p> <p>Italy’s lockdown is extended nationwide as it reaches 9,172 cases (the highest outside China), expanding exponentially.</p> <p><i>WHO Situation Report</i></p>	<p>NEWS REPORT</p> <p>NY Times: “A Fumbled Global Response to the Virus in a Leadership Void”</p> <p>“While world leaders are at last speaking out about the gravity of the pandemic, their voices are less a choir than a cacophony.”</p> <p><i>NY Times</i></p>
	<p>RETROSPECTIVE EVIDENCE</p> <p>CASES</p> <p>258,728 estimated infections in China</p> <p>Hao X, Chen S, et al. Published: 16 Jul 2020</p> <p>Reconstruction of transmission dynamics of COVID-19 in Wuhan estimated that there were 258,728 infections by 8 March.</p> <p><i>Nature</i></p>	<p>SCIENCE</p> <p>Severity increases with age</p> <p>Pan A, Liu L, et al. Published: 10 Apr 2020</p> <p>Data from 32,583 Wuhan cases identified between 8 Dec. 2019 and 8 March 2020 showed that severity increased with age and that public health measures were effective in dropping the reproduction rate</p> <p><i>JAMA</i></p>	<p>SCIENCE</p> <p>Estimates of severity of COVID-19</p> <p>Verity R, Okell L.C, et al. Published 30 Mar 2020</p> <p>Early dynamics of transmission and control of COVID-19: a mathematical modelling study.</p> <p><i>Lancet Infectious Diseases</i></p>
<p>08 Mar — 09 Mar — 10 Mar — 11 Mar</p>			














	PUBLICATION	MEETING	GUIDANCE
INTERNATIONAL	<p>Monitoring and mitigating the secondary impacts of COVID-19</p> <p>UNICEF</p> <p>UNICEF presents briefing on <i>Monitoring and mitigating the secondary impacts of the COVID-19 epidemic on WASH services availability and access.</i></p> <p><i>UNICEF</i></p>	<p>Ninth meeting of the STAG-IH</p> <p>WHO STAG-IH</p> <p>Experts discuss pandemic announcement, epidemiology and laboratory diagnosis updates, R&D Blueprint global meeting update, and solidarity trial.</p> <p><i>WHO STAG-IH</i></p>	<p>Human rights in the COVID-19 response</p> <p>OHCHR</p> <p>UN Human Rights Office of the High Commissioner publishes guidance on the importance of human rights in the response.</p> <p><i>OHCHR</i></p>
COUNTRY	<p>MASK USAGE</p> <p>Bhutan recommends mask wearing</p> <p>Government of Bhutan</p> <p>Bhutan recommends mask-wearing, the first country in SEAR to do so.</p> <p><i>Our World in Data</i></p> <p>Cases per million Bhutan: 1.296</p>	<p>BORDER CONTROL MEASURES</p> <p>Argentina suspends flights from high-risk areas</p> <p>President</p> <p>There is a 30-day suspension of flights from high-risk countries, including all of Europe, Iran, the US, the Republic of Korea, Japan, and China.</p> <p><i>La Nacion</i></p> <p>Cases per million Argentina: 0.42</p>	<p>DECLARATION OF EMERGENCY</p> <p>Argentina expands emergency measures</p> <p>Ministry of Health</p> <p>Argentina passes the Decree of Necessity and Urgency, which allows adoption of new health emergency measures.</p> <p><i>Government announcement</i></p> <p>Cases per million Argentina: 0.42</p>
REAL-TIME EVIDENCE	<p>NEWS REPORT</p> <p>Urgent need for health security funds</p> <p>“COVID-19 response must be never again” - urgent need for funds for a co-ordinated effort to identify, trial, and make available potential treatments.</p> <p><i>Financial Times</i></p>	<p>CASES</p> <p>Iran: Second highest (8,042 cases) outside China</p> <p>Iran has the second highest number of cases outside China with 8,041, surpassing the Republic of Korea.</p> <p><i>WHO Situation Report</i></p>	<p>DECLARATION OF EMERGENCY</p> <p>Three countries declare states of emergency</p> <p>Various countries</p> <p>India, the United States, and Uruguay declare states of emergency or implement emergency legislation.</p> <p><i>India, United States, Uruguay</i></p> <p>Cases per million India: 0.06 United States: 6.70 Uruguay: 1.15</p>
RETROSPECTIVE EVIDENCE		<p>CASES</p> <p>108,689 estimated US infections</p> <p>Perkins TA, Cavany SM, et al. Published: 21 Aug 2020</p> <p>Modelling study finds that fewer than 10% of cases were detected due to lack of testing; likely 108,689 infections in the US by 12 March.</p> <p><i>PNAS</i></p>	<p>NEWS REPORT</p> <p>Nature interviews experts: containment still possible</p> <p>Wellcome Trust, US CDC, and WHO experts say COVID-19 containment still possible.</p> <p><i>Nature News Explainer</i></p>

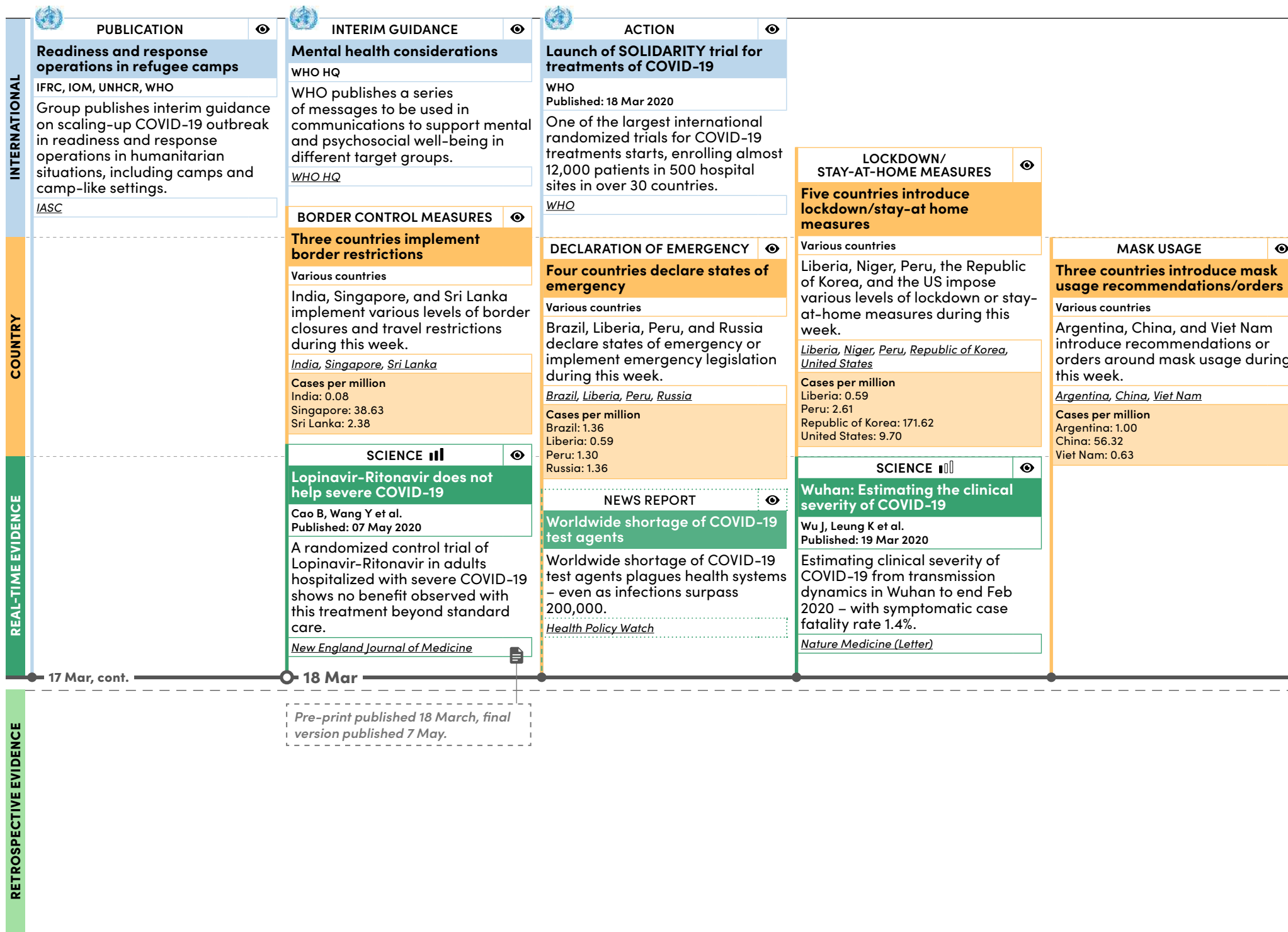
11 Mar, cont.

12 Mar

13 Mar

INTERNATIONAL	ANNOUNCEMENT 				
COUNTRY	WHO, UN Foundation, and partners launch COVID-19 Solidarity Response Fund				
	WHO Published: 13 Mar 2020 The Solidarity Response Fund is a new mechanism for WHO to receive resources from a broader funding base, including private individuals, and corporations. WHO				
REAL-TIME EVIDENCE	LOCKDOWN/ STAY-AT-HOME MEASURES 	LOCKDOWN/ STAY-AT-HOME MEASURES 	LOCKDOWN/ STAY-AT-HOME MEASURES 	DECLARATION OF EMERGENCY 	LOCKDOWN/ STAY-AT-HOME MEASURES 
	Uruguay requests people to stay at home President President asks people to stay in their homes to protect the population. BMJ Cases per million Uruguay: 1.15	Iraqi region introduces lockdown/stay-at-home measures Iraq Kurdish Regional Government Kurdish region of Iraq placed under curfew, the first area in EMR to impose movement restrictions. Anadolu Agency Cases per million Iraq: 2.511	Two countries introduce lockdown/stay at home measures Governments of Jamaica and Venezuela Jamaica introduces 2 week quarantine in select communities. Venezuela introduces mandatory stay-at-home measures except for essential reasons, the first countries in AMR to do so. Jamaica, Venezuela Cases per million Jamaica: 2.702	Spain: State of alarm declared Ministry of the Presidency State of alarm declared for 15 days. Government announcement Cases per million Spain: 136.69	Spain begins lockdown Prime Minister Two-week lockdown announced ordering people to stay at home with some exceptions for essential services. The Guardian Cases per million Spain: 136.69
RETROSPECTIVE EVIDENCE	13 Mar, cont. ● ● ● ○ 14 Mar ●				

INTERNATIONAL	 ACTION PLAN 	 COMMENT  	MEETING 	PUBLICATION 
COUNTRY	Risk Communication and Community Engagement Plan Tool for Risk Communication and Community Engagement (RCCE) staff and responders working with national health authorities and others, to develop, implement and monitor an action plan for communicating with the public and engaging communities and partners. <i>WHO HQ</i>	COVID-19: Towards controlling of a pandemic WHO STAG-IH In a comment to the Lancet, STAG-IH outlines understanding of control activities and emphasizes research gaps that need to be addressed. <i>Lancet</i>	G7 leaders meet and issue statement G7 Published: 16 Mar 2020 “By acting together, we will work to resolve the health and economic risks caused by the COVID-19 pandemic and set the stage for a strong recovery of strong, sustainable economic growth and prosperity.” <i>GZ</i>	Mental health briefing note IASC The Inter-Agency Standing Committee, the highest level humanitarian coordination forum of the UN system, publishes an interim briefing note addressing mental health and psychosocial aspects of the COVID-19 outbreak. <i>IASC</i>
REAL-TIME EVIDENCE	BORDER CONTROL MEASURES  Four countries implement border restrictions Various countries Argentina, Liberia, Peru, and Spain implement various levels of border closures and travel restrictions. <i>Argentina, Liberia, Peru, Spain</i> Cases per million Argentina: 1.24 Liberia: 0.20 Peru: 2.61 Spain: 212.64	SCHOOL CLOSURES  Four countries implement school closures Various countries Argentina, Germany, India, and Spain implement various levels and types of school closures. <i>Argentina, Germany, India, Spain</i> Cases per million Argentina: 1.24 Germany: 86.80 India: 0.09 Spain: 212.64	BORDER CONTROL MEASURES  India implements border controls Government of India Land borders with Myanmar, Bhutan, Nepal, Bangladesh closed. Land border with Pakistan closed. First country in SEAR to take these measures. <i>Indian Ministry of Home Affairs</i>	
RETROSPECTIVE EVIDENCE	CASES  143 countries, over 72,000 cases 81,048 cases in China, 72,469 cases outside China, in 143 countries. <i>WHO Situation Report</i>	SCIENCE   Imperial College publishes mitigation vs. suppression model Ferguson N, Laydon D, et al. Influential epidemiological model of the impact of different non-pharmaceutical interventions is published. <i>Imperial College</i>		
15 Mar	16 Mar			17 Mar



Pre-print published 18 March, final version published 7 May.

INTERNATIONAL	<p>REPORT</p> <p>Responding to the socio-economic impacts of COVID-19</p> <p>UN</p> <p>The UN publishes a global solidarity document on responding to the socio-economic impacts of COVID-19.</p> <p><i>UN</i></p>				
	COUNTRY	<p>SCHOOL CLOSURES</p> <p>Six countries implement school closures</p> <p>Various countries</p> <p>Egypt, Liberia, Nigeria, Sweden, Thailand, and Uruguay implement various levels and types of school closures during during this week.</p> <p><i>Egypt, Liberia, Nigeria, Sweden, Thailand, Uruguay</i></p> <p>Cases per million</p> <p>Egypt: 1.08 Liberia: 0.59 Nigeria: 0.04 Sweden: 125.26 Thailand: 3.04 Uruguay: 2.30</p>	<p>LOCKDOWN/ STAY-AT-HOME MEASURES</p> <p>Lesotho introduces lockdown/ stay-at home measures</p> <p>Government of Lesotho</p> <p>Lesotho introduces measures mandating people to stay at home except for "extreme circumstances," the first in AFR to do so.</p> <p><i>Our World in Data</i></p>	<p>BORDER CONTROL MEASURES</p> <p>Six countries implement border restrictions</p> <p>Various countries</p> <p>Egypt, Germany, New Zealand, Niger, the Republic of Korea, and Sweden implement various levels of border closures and travel restrictions.</p> <p><i>Egypt, Germany, New Zealand, Niger, Republic of Korea, Sweden</i></p> <p>Cases per million</p> <p>Egypt: 2.30 Germany: 182.85 New Zealand: 5.81 Republic of Korea: 167.06 Sweden: 153.77</p>	<p>LOCKDOWN/ STAY-AT-HOME MEASURES</p> <p>Two countries introduce lockdown/ stay-at home measures</p> <p>Various countries</p> <p>Argentina and Fiji introduce various levels of lockdown or stay-at-home measures.</p> <p><i>Argentina, Fiji</i></p> <p>Cases per million</p> <p>Argentina: 2.15 Fiji: 1.12</p>
REAL-TIME EVIDENCE		18 Mar, cont.		19 Mar	
RETROSPECTIVE EVIDENCE					









	PUBLICATION	ACTION	INTERIM GUIDANCE	INTERIM GUIDANCE	
INTERNATIONAL	A gender lens on COVID-19 UNFPA United Nations Population Fund (UNFPA) publishes technical brief on protecting sexual and reproductive health and rights, and promoting gender equality. <i>UNFPA</i>	WHO and social media companies launch Health Alert messaging service WHO Published: 20 Mar 2020 WHO launches dedicated COVID-19 public health messaging services in Arabic, English, French, Hindi, Italian, Spanish, and Portuguese with WhatsApp and Facebook.	Laboratory testing strategy recommendations WHO HQ WHO publishes recommendations for laboratory testing strategy. It describes the strategic use of diagnostic tests in different scenarios and includes how to rationalize testing when testing capacity/reagents are lacking. <i>WHO HQ</i>	Infection prevention in long-term care WHO HQ WHO publishes interim guidance on infection prevention and control in long-term care facilities to prevent spread within and outside the facility. <i>WHO HQ</i>	
	SCHOOL CLOSURES Four countries implement school closures Various countries Fiji, Niger, Uganda, and the UK implement various levels and types of school closures. <i>Fiji, Niger, Uganda, United Kingdom</i> Cases per million Fiji: 1.12 Niger: 0.04 United Kingdom: 114.77	<i>WHO</i>	BORDER CONTROL MEASURES Three countries implement border restrictions Various countries Mexico, Pakistan, and Uganda implement various levels of border closures and travel restrictions. <i>Mexico, Pakistan, Uganda</i> Cases per million Mexico: 1.95 Pakistan: 3.51 Uganda: 0.02		BORDER CONTROL MEASURES Four countries implement border restrictions Various countries India, Spain, Uruguay, and Viet Nam implement various levels of border closures and travel restrictions. <i>India, Spain, Uruguay, Viet Nam</i> Cases per million India: 0.29 Spain: 615.30 Uruguay: 45.48 Viet Nam: 1.16
COUNTRY					
REAL-TIME EVIDENCE	 CASES Europe becomes epicenter Europe (104,591 cases) surpasses Western Pacific (93,349 cases) as epicenter. <i>WHO Situation Report</i>	CASES Spain: Second highest outside China (19,980 cases) Spain surpasses Iran to become the country with the second highest cases outside China, after Italy. <i>WHO Situation Report</i>			CASES 300,000 cases globally 292,142 cases globally, driven by Europe (151,293 cases) and Western Pacific (94,787 cases). <i>WHO Situation Report</i>
	20 Mar	21 Mar	22 Mar		
RETROSPECTIVE EVIDENCE	CASES Iran: 916,000 cumulative cases estimated Ghaffarzadegan N, Rhamandad H Published: 06 Jul 2020 Simulation modelling estimates 916,000 cumulative cases in Iran by 20 March. 19,644 cases were reported by this date. <i>System Dynamics Review</i>				

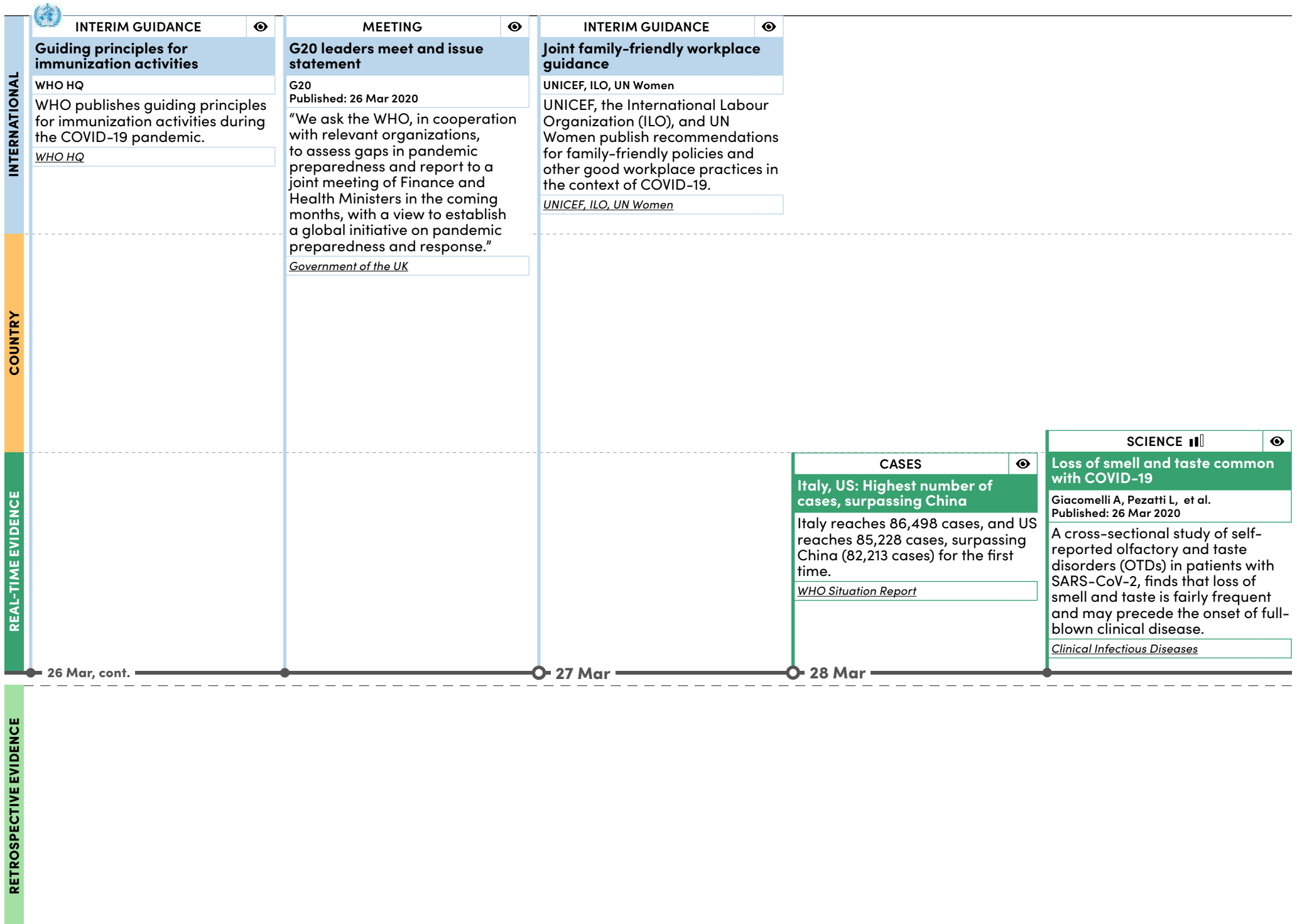
	PUBLICATION		ANNOUNCEMENT	INTERIM GUIDANCE	ACTION
INTERNATIONAL	Guidance on social distancing ECDC The European Center for Disease Prevention and Control publishes a technical report on considerations relating to social distancing measures in response to COVID-19. ECDC		Japan postpones Summer Olympics International Olympic Committee The President of the International Olympic Committee and the Prime Minister of Japan hold a conference call where they decide to postpone the Summer Olympics until “no later than summer 2021”. International Olympic Committee	Guidance for refugee and migrant health EURO WHO Regional Office for Europe (EURO) publishes interim guidance for refugee and migrant health in relation to COVID-19. EURO	UN begins fundraising drive UN UN launches a USD 2 billion coordinated global humanitarian response plan to fight COVID-19 in vulnerable countries. UN OCHA
	SCHOOL CLOSURES Five countries implement school closures Various countries Mexico, Mozambique, New Zealand, Russia, and the Republic of Korea implement various levels and types of school closures. Mexico, Mozambique, New Zealand, Russia, Republic of Korea Cases per million Mexico: 2.85 Mozambique: 0.03 New Zealand: 21.15 Russia: 3.00 Republic of Korea: 174.78	LOCKDOWN/ STAY-AT-HOME MEASURES Two countries introduce lockdown/stay-at home measures Various countries Pakistan and the UK introduce various levels of lockdown or stay-at-home measures. Pakistan, United Kingdom Cases per million Pakistan: 4.40 United Kingdom: 187.73	MASK USAGE Namibia recommends mask wearing Government of Namibia Namibia recommends mask wearing, the first in AFR to do so. Our World in Data Cases per million Namibia: 2.755	LOCKDOWN/ STAY-AT-HOME MEASURES Four countries introduce lockdown/stay-at-home measures Various countries Egypt, India, New Zealand, and Sweden introduce various levels of lockdown or stay-at-home measures. Egypt, India, New Zealand, Sweden Cases per million Egypt: 4.46 India: 0.48 New Zealand: 42.51 Sweden: 268.53	BORDER CONTROL MEASURES Four countries implement border restrictions Various countries Brazil, China, Nigeria, and Russia implement various levels of border closures and travel restrictions during this week. Brazil, China, Nigeria, Russia Cases per million Brazil: 16.08 China: 56.97 Nigeria: 0.19 Russia: 7.10
COUNTRY					
REAL-TIME EVIDENCE				SCIENCE Modelling shows measures can control spread of COVID-19 Prem K, Liu Y et al. Published: 25 Mar 2020 Using computational models of spread in Wuhan, control measures are found to halt the pandemic, but premature lifting will lead to an earlier second peak. The Lancet Public Health	
RETROSPECTIVE EVIDENCE			SCIENCE Seroprevalence in Wuhan and outside approximately 3% Xu X, Sun J, et al. Published: 05 Jun 2020 Seroprevalence in Wuhan ranged from 3.2% and 3.8% during 9 March-10 April, and anywhere from 1.3% and 3.6% in two cities outside Wuhan but within Hubei. Nature Medicine		

23 Mar

24 Mar

25 Mar

INTERNATIONAL				 PUBLICATION  Origins of SARS-CoV-2 WHO HQ All available evidence suggests SARS-CoV-2 has a natural animal origin and is not a manipulated or constructed virus. Most probable ecological reservoir is bats. WHO HQ	 INTERIM GUIDANCE  Surveillance guidance using GISRS WHO HQ WHO publishes interim guidance on operational considerations for leveraging influenza surveillance systems such as the Global Influenza Surveillance and Response System to incorporate COVID-19 testing. WHO HQ
	COUNTRY	DECLARATION OF EMERGENCY  Five countries declare states of emergency Various countries New Zealand, Niger, Pakistan, Thailand, and the UK declare states of emergency, or implement emergency legislation during this week. New Zealand, Niger, Pakistan, Thailand, United Kingdom Cases per million New Zealand: 106.59 Niger: 3.73 Pakistan: 8.49 Thailand: 14.97 United Kingdom: 262.84	LOCKDOWN/ STAY-AT-HOME MEASURES  Six countries introduce lockdown/stay-at home measures Various countries Brazil, Germany, Niger, Russia, Thailand, and Uganda introduce various levels of lockdown or stay-at-home measures during this week. Brazil, Germany, Niger, Russia, Thailand, Uganda Cases per million Brazil: 10.57 Germany: 296.87 Niger: 0.41 Russia: 8.66 Thailand: 14.97 Uganda: 0.20	SCHOOL CLOSURES  US close all public schools Subnational actors in the United States All public school buildings in the US are closed by this date. Education Week Cases per million United States: 207.97	BORDER CONTROL MEASURES  Three countries implement border restrictions Various countries Fiji, Thailand, and Uruguay implement various levels of border closures and travel restrictions. Fiji, Thailand, Uruguay Cases per million Fiji: 5.58 Thailand: 14.97 Uruguay: 68.51
RETROSPECTIVE EVIDENCE		25 Mar, cont. ● ● ● ○ 26 Mar ●			



INTERNATIONAL

COUNTRY

REAL-TIME EVIDENCE

RETROSPECTIVE EVIDENCE

<p>CASES </p> <p>US has world’s highest number of cases</p> <p>The US becomes the world’s epicenter, surpassing Italy, with 103,321 cases.</p> <p><i>WHO Situation Report</i></p>	<p>CASES </p> <p>Americas become number two epicenter, 635,000 cases globally</p> <p>634,813 cases globally driven by Europe (361,031 cases) and Region of Americas (120,792 cases). The Americas surpasses Western Pacific.</p> <p><i>WHO Situation Report</i></p>	<p>NEWS REPORT </p> <p>UN warns of impact on students</p> <p>As one of several announcements about the socio-economic impact of COVID-19, the UN warns that “now nearly 1.5 billion children - or 87% of Earth’s student population - whose schools have closed because of the novel coronavirus pandemic.”</p> <p><i>Washington Post</i></p>	<p>SCIENCE </p> <p>Estimates of COVID-19 fatality ratio published</p> <p>Verity R, Okell L, et al. Published: 30 Mar 2020</p> <p>Estimated overall infection fatality ratio for China is 0.66%, with an increasing profile with age.</p> <p><i>The Lancet Infectious Diseases</i></p>	<p>SCIENCE </p> <p>European analysis of public health interventions</p> <p>Flaxman S, Mishra S, et al. Published: 30 Mar 2020</p> <p>Non-pharmaceutical interventions are found to be effective to reduce transmission, but take two to three weeks to demonstrate impact.</p> <p><i>Imperial College</i></p>
<p>29 Mar</p>		<p>30 Mar</p>		

<p>CASES </p> <p>11-fold under-detection in New York State</p> <p>Rosenberg ES, Tesoriero JM, et al. Published: 17 Jun 2020</p> <p>Detected cases compared to seroprevalence were 8.9%, suggesting an 11-fold under-detection of cases in New York State. The number of infection-experienced adults were estimated to be 2,139,300.</p> <p><i>Annals of Epidemiology</i></p>



MEETING



13th meeting of the STAG-IH

WHO STAG-IH

Following meetings on 19, 24, and 27 March, STAG-IH experts continue to discuss country situations, research areas, and exit strategies.

WHO STAG-IH

INTERNATIONAL

COUNTRY

CASES



COVID-19 sweeps the globe

WHO

WHO reports 750,890 COVID-19 cases globally, including 57,610 in the previous 24 hours, along with 36,405 deaths. The US reports the highest number of cases with 140,640. Italy reports the highest number of deaths with 11,591.

WHO Situation Report

REAL-TIME EVIDENCE

31 Mar

CASES 



Lockdown led to rapid reduction of transmission in New Zealand

Geoghegan JL, Ren X, et al.
Published: 11 Dec 2020

Genomic epidemiology reveals rapid reduction of transmission within one week of lockdown in New Zealand. Re decreased from 7 to 0.2.

Nature Communications

RETROSPECTIVE EVIDENCE