VII CONGRESSO NEWMICRO
LA MICROBIOLOGIA CHE VERRÀ:
DALL'ERA COVID AL POST COVID

NewMicro
Network di Microbiologia e Virologia del Nord Est

LA LEZIONE DEL SARS-CoV-2: QUALE ESPERIENZA UTILE PER IL FUTURO?

Il ruolo dell'OMS

Francesco Zambon, Azienda ULSS 2

LEZIONI APPRESE…

QUAL E’ IL PRESUPPOSTO?

QUELLO DI
POTER SBAGLIARE
O
FARE MEGLIO

The Lancet Commissions

The *Lancet* Commission on lessons for the future from the COVID-19 pandemic

Jeffrey D Sachs, Salim S Abdool Karim, Lara Aknin, Joseph Allen, Kirsten Brosbøl, Francesca Colombo, Gabriela Cuevas Barron, Maria Fernanda Espinosa, Vitor Gaspar, Alejandro G… Peter J Hotez, Phoebe Koundouri, Felipe Larraín Bascuñán, Jong-Koo Lee, Muhammad Ali Pate, Gabriela Ramos, K Srinat… Thwaites, Vaira Vike-Freiberga, Chen Wang, Miriam Khamadi Were, Lan Xue, Chandrika Bahadur, Maria Elena … ei, Yanis Ben Amor, Ozge Karadag, Guillaume Lafortune, Emma Torres, Lauren Barredo, Juliana G… Kim Huynh, Shweta Khandelwal, Jeffrey V Lazarus, Susan Michie

Global failure at multiple levels

Executive summary

As of May 31, 2022, there… deaths and 17·2 millio… COVID-19, as reported by th… and Evaluation (IHME; throu… IHME estimates of infections … IHME gives an estimated rang… mean estimate). This staggering … profound tragedy and a massive global fai… levels. Too many governments have failed to adhere to basic norms of institutional rationality and transparency, too many people—often influenced by misinformation—have disrespected and protested against basic public health precautions, and the world's major powers have failed to collaborate to control the pandemic.

…at governments are committed t… the UN. We address this C… member states, … …tions, and … …gthening … emergencies and … …elopment. In issuing this … excellent work of many impor… that have preceded our own, most … Independent Panel for Pandemic P… Response and the G20 High-Level Indepen… Financing the Global Commons on … Preparedness and Response.

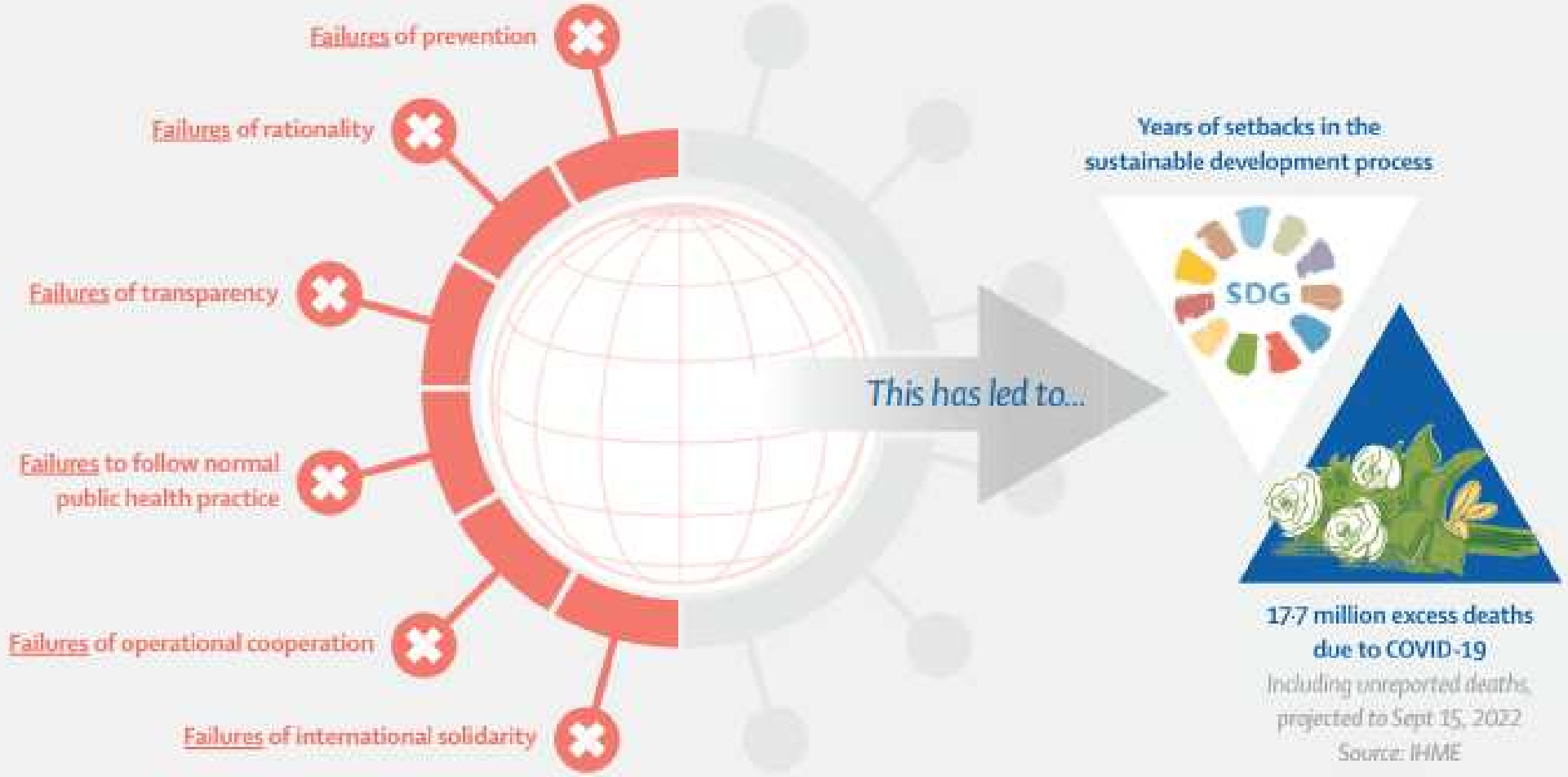
Section 1 of this Commission report provides a

Published Online … tember 14, 2022 … .org/10.1016/ … 1585-9

… Health (Prof S S Abdool Karim MBChB PhD), **Columbia University, New York, NY, United States; Department of Psychology,**

COVID-19 response: a massive global failure

Widespread failures at multiple levels worldwide have led to millions of preventable deaths and a reversal in progress towards sustainable development for many countries



At a national level, most governments...

- Were ill-prepared and unable to adequately respond
- Were too slow in their response to the outbreak of SARS-CoV-2
- Paid too little attention to the most vulnerable groups in their societies
- Were hampered by low public trust and an epidemic of misinformation

COSA E' ANDATO STORTO?

World Health Organization

Health Topics | Countries | Newsroom | Emergencies

Home / News / WHO responds to The Lancet COVID-19 Commission

WHO responds to The Lancet COVID-19 Commission

15 September 2022 | St... | Reading time: 7 min (1910 words)

WHO welcom... ...dations of *The Lanc*... "Lessons for... ...ndemic," whic... regional an... ...preven... there are s... ...ealth emergency... ...nd the speed and...

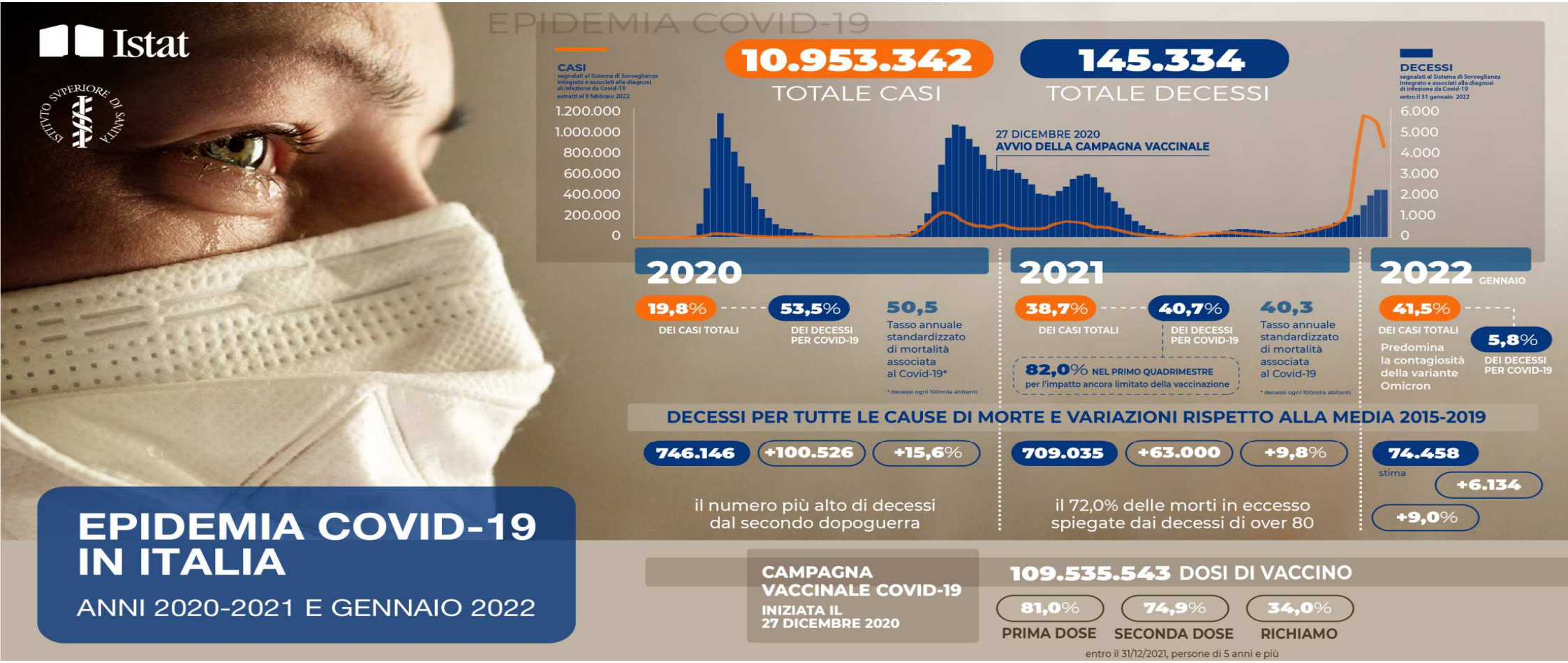
WHO welcom... ...ment of a pandemic agreement, st... ...g the International Health Regulati... ...financing. These issues are core to the vision of WHO Director-General, Dr Tedros Ad... ...breyesus, as distilled in the five priorities for his second term. WHO and

Key omissions and misinterpretations

ISTAT / ISS

100.000 morti in più rispetto all'atteso nel 2020

63.000 in più nel 2021



Articles

Estimating excess mortality due to the COVID-19 pandemic: a systematic analysis of COVID-19-related mortality, 2020–21

COVID-19 Excess Mortality Collaborators*

Summary

Background Mortality statistics are fundamental to public health decision making. Mortality varies by time and location, and its measurement is affected by well known biases that have been exacerbated during the COVID-19 pandemic. This paper aims to estimate excess mortality from the COVID-19 pandemic in 191 countries and territories, and 252 subnational units for selected countries, from Jan 1, 2020, to Dec 31, 2021.

Methods All-cause mortality reports were collected for 74 countries and territories and 266 subnational locations (including 31 locations in low-income and middle-income countries) that had reported either weekly or monthly deaths from all causes during the pandemic in 2020 and 2021, and for up to 11 year previously. In addition, we obtained excess mortality data for 12 states in India. Excess mortality over time was calculated as observed mortality, after excluding data from periods affected by late registration and anomalies such as heat waves, minus expected mortality. Six models were used to estimate expected mortality; final estimates of expected mortality were based on an ensemble of these models. Ensemble weights were based on root mean squared errors derived from an out-of-sample predictive validity test. As mortality records are incomplete worldwide, we built a statistical model that predicted the excess mortality rate for locations and periods where all-cause mortality data were not available. We used least absolute shrinkage and selection operator (LASSO) regression as a variable selection mechanism and selected 15 covariates, including both covariates pertaining to the COVID-19 pandemic, such as seroprevalence, and to background population health metrics, such as the Healthcare Access and Quality Index, with direction of effects on excess mortality concordant with a meta-analysis by the US Centers for Disease Control and Prevention. With the selected best model, we ran a prediction process using 100 draws for each covariate and 100 draws of estimated coefficients and residuals, estimated from the regressions run at the draw level using draw-level input data on both excess mortality and covariates. Mean values and 95% uncertainty intervals were then generated at national, regional, and global levels. Out-of-sample predictive validity testing was done on the basis of our final model specification.

Findings Although reported COVID-19 deaths between Jan 1, 2020, and Dec 31, 2021, totalled 5·94 million worldwide, we estimate that 18·2 million (95% uncertainty interval 17·1–19·6) people died worldwide because of the COVID-19 pandemic (as measured by excess mortality) over that period. The global all-age rate of excess mortality due to the COVID-19 pandemic was 120·3 deaths (113·1–129·3) per 100 000 of the population, and excess mortality rate exceeded 300 deaths per 100 000 of the population in 21 countries. The number of excess deaths due to COVID-19 was largest in the regions of south Asia, north Africa and the Middle East, and eastern Europe. At the country level, the highest numbers of cumulative excess deaths due to COVID-19 were estimated in India (4·07 million [3·71–4·36]), the USA (1·13 million [1·08–1·18]), Russia (1·07 million [1·06–1·08]), Mexico (798 000 [741 000–867 000]), Brazil (792 000 [730 000–847 000]), Indonesia (736 000 [594 000–955 000]), and Pakistan (664 000 [498 000–847 000]). Among these countries, the excess mortality rate was highest in Russia (374·6 deaths [369·7–378·4] per 100 000) and Mexico (325·1 [301·6–353·3] per 100 000), and was similar in Brazil (186·9 [172·2–199·8] per 100 000) and the USA (179·3 [170·7–187·5] per 100 000).

Interpretation The full impact of the pandemic has been much greater than what is indicated by reported deaths due to COVID-19 alone. Strengthening death registration systems around the world, long understood to be crucial to global public health strategy, is necessary for improved monitoring of this pandemic and future pandemics. In addition, further research is warranted to help distinguish the proportion of excess mortality that was directly caused by SARS-CoV-2 infection and the changes in causes of death as an indirect consequence of the pandemic.

Funding Bill & Melinda Gates Foundation, J Stanton, T Gillespie, and J and E Nordstrom

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Introduction

An accurate measurement of the number of deaths due to the COVID-19 pandemic is crucial for each country and region to understand the magnitude of the pandemic's impact on public health. Accurate measurement of death is also needed to understand the determinants of variation in the infection–fatality ratio across populations, and is a direct input into forecasting the pandemic and

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This online publication has been corrected. The corrected version first appeared at thelancet.com on April 14, 2022

*Collaborators listed at the end of the paper

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Marzo 2022:

The Lancet pubblica un articolo sull'eccesso di mortalità da PANDEMIA

Biennio 2020-2021

Da 6 milioni a

18 milioni nel mondo

la Repubblica

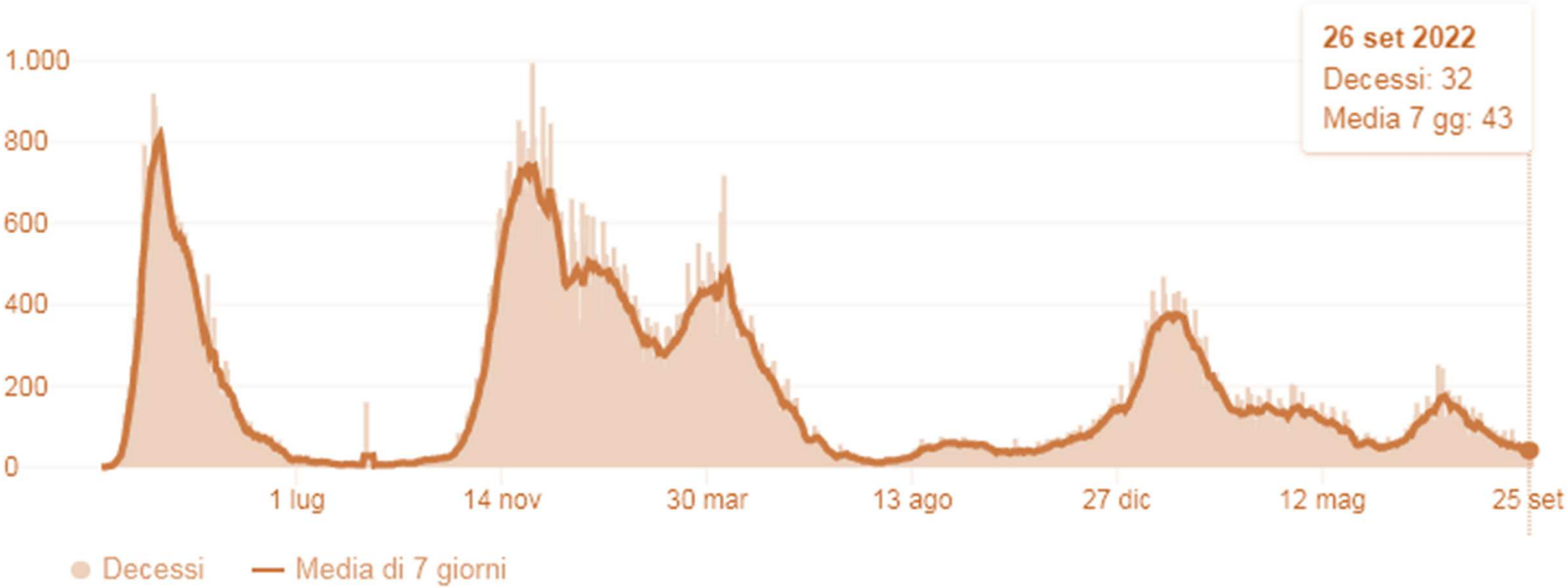
I dubbi degli esperti sul rapporto di Lancet: "Centoventimila morti in più per il Covid? Dati sovrastimati e poco chiari"

di Michele Bocci

Una ricerca americana triplica il numero dei decessi nel mondo. Le cifre dell'Italia mobilitano Iss e Istat. I ricercatori: "Il nostro sistema di monitoraggio funziona e portano a cifre diverse"

Popolazione	24 milioni
Superficie	2 volte Veneto
SARS 2003	181 morti (0)
Distanza Cina	120 km

ITALIA, decessi da inizio pandemia



John Hopkins University data

TAIWAN, decessi da inizio pandemia

TAIWAN
9

ITALIA (2.5)
120.807

Tasso mortalità
5324 volte

Chen Chien-jen
Epidemiologo
MPH Sanità pubblica

Ministro Salute 2003
Vice Presidente 2020

Lezioni apprese

- Sorveglianza autonoma su Cina
- Revisione sistemi sanitari post SARS
- Piani di risposta e simulazioni
- Isolamento precoce
- Contact tracing 'spinto'
- Comunicazione trasparente a tutti
- Partecipazione della comunità
- Collaborazione internazionale

https://publichealth.jhu.edu/events/covid-19-events-and-briefings/inside-taiwans-response-to-covid-19

L' ILLUSTRAZIONE
ITALIANA

Anno XXIV. - N. 10. - 7 Marzo 1897. Centesimi Cinquanta il Numero.

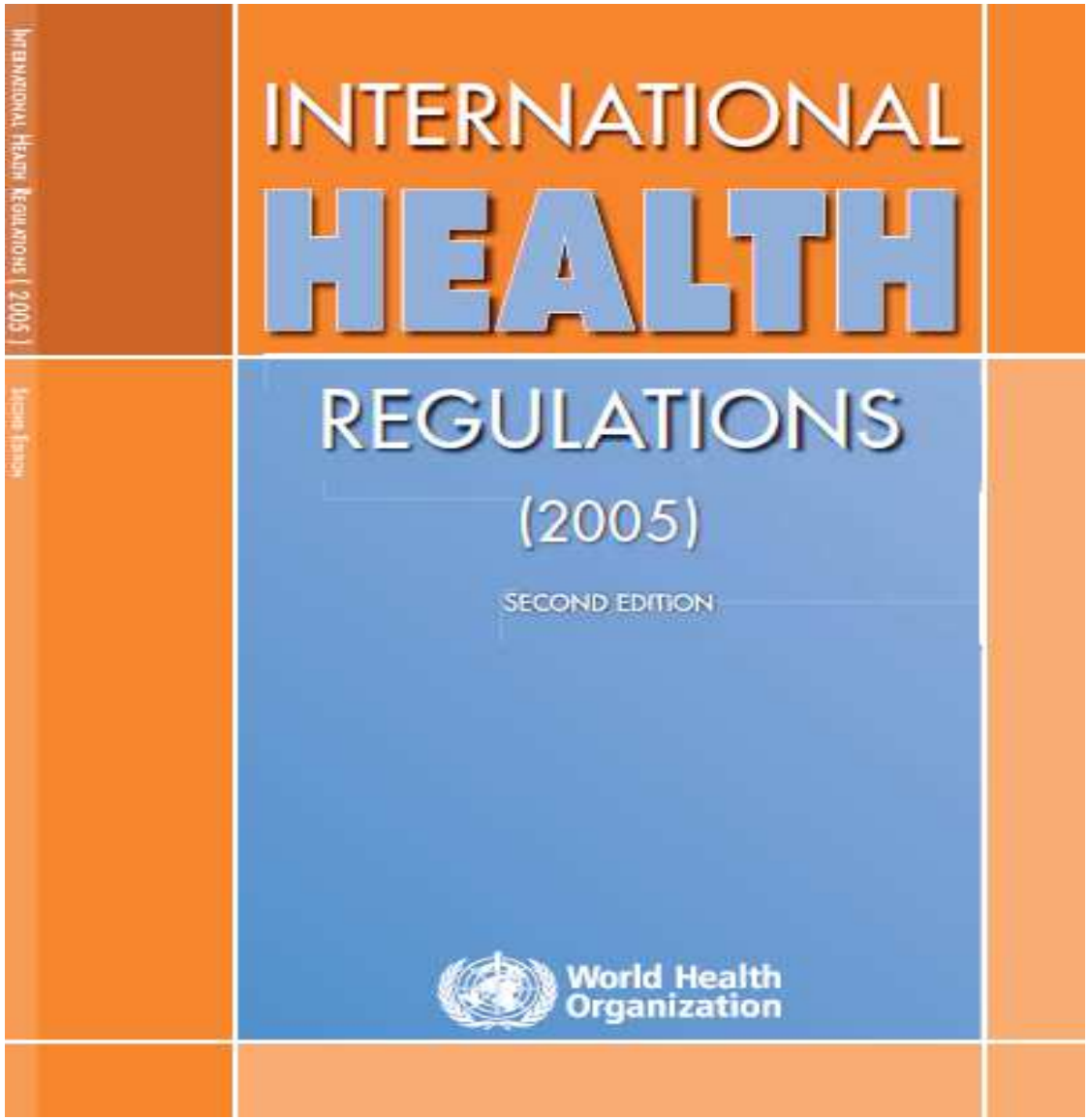
Per tutti gli articoli e i disegni è riservata la proprietà letteraria ed artistica, secondo le leggi e i trattati internazionali.

UNA SEDUTA DELLA CONFERENZA SANITARIA INTERNAZIONALE A VENEZIA (disegno di A. Beltrame, da fotografie del sig. L. Rival.

International sanitary conference, 1851

↓

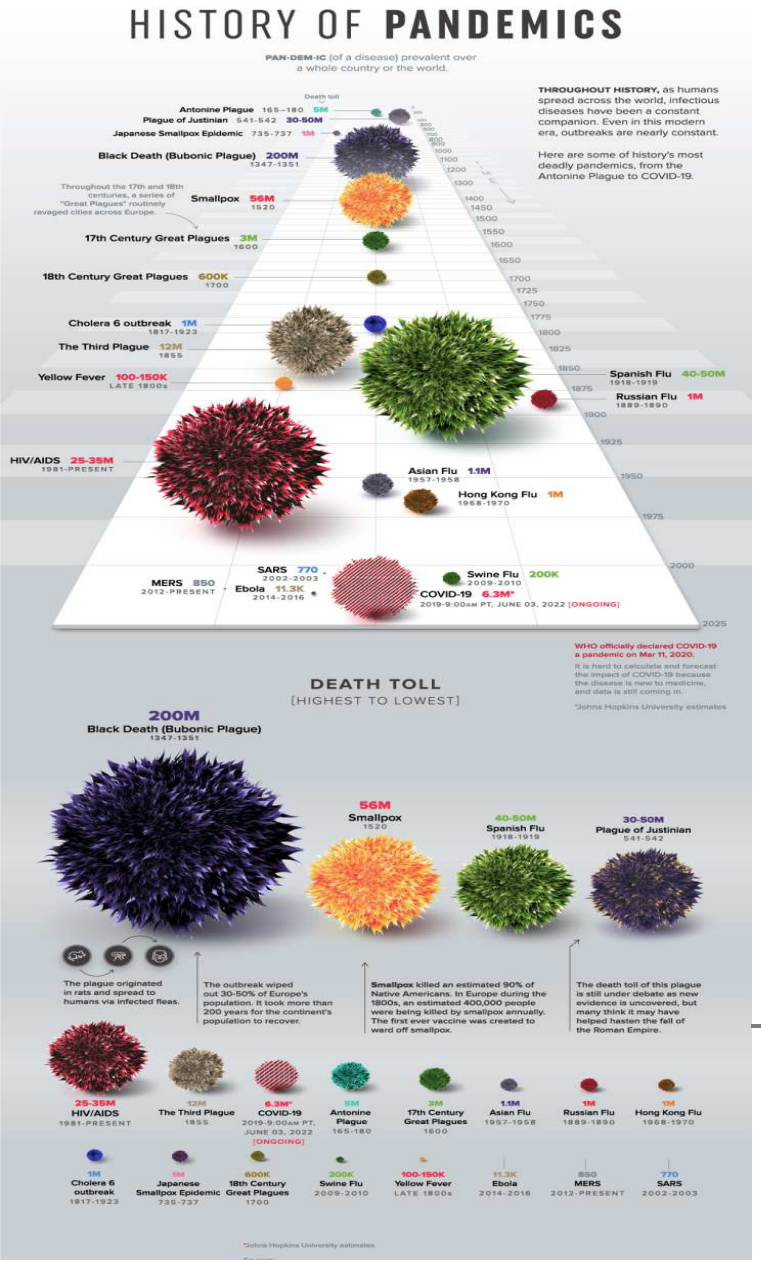
International Health Regulations, 2005



World Health Organization

ecdc
EUROPEAN CENTRE FOR DISEASE PREVENTION AND CONTROL

European Commission

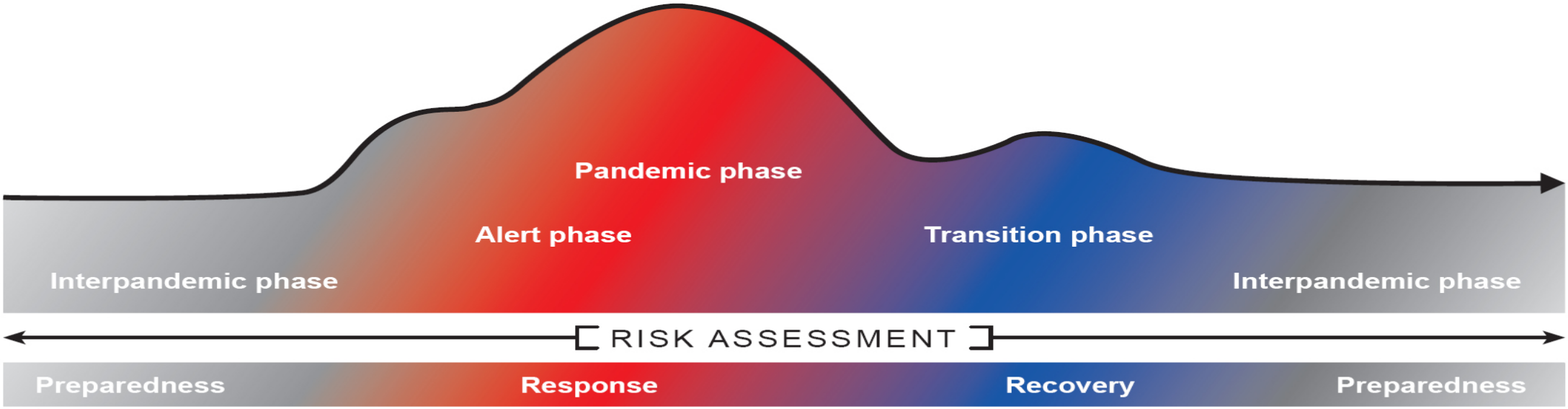


Quante pandemie?

- 1918 *Spagnola*
  50-100 milioni
- 1957 *Asiatica*
  1.1 milioni
- 1968 *Hong-Kong*
  1 milione
- *(1981 HIV/AIDS*
  35 milioni)

- 2009 *suina*
  0.2-0.6 milioni

Dopo la pandemia del 2009 cambiano le fasi pandemiche

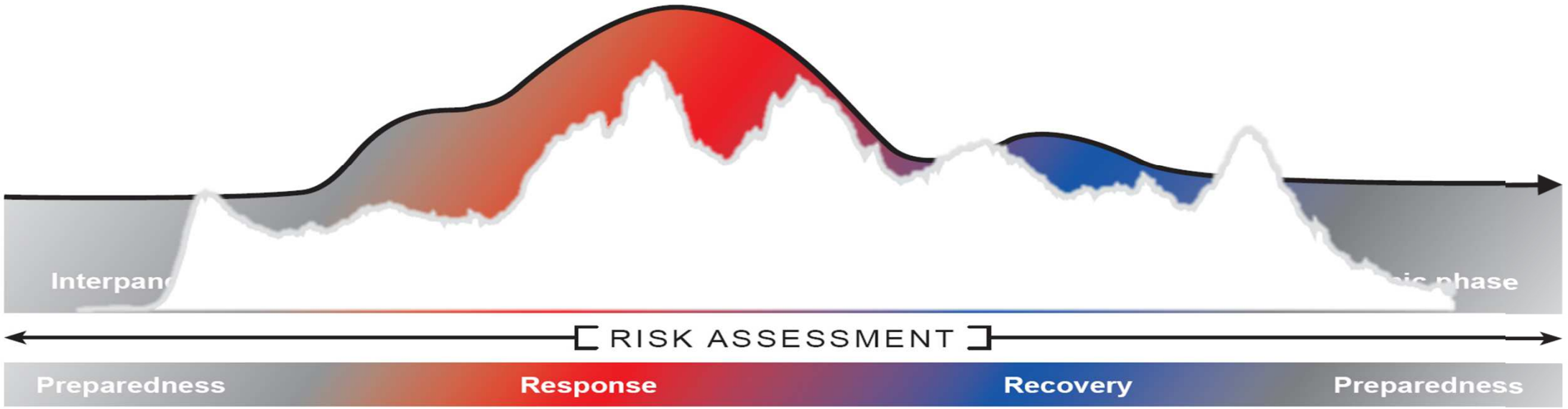


[a]This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

Source: World Health Organization, *Pandemic influenza risk management*.[9]

Si aggiornano le linee guida OMS a cui tutti i piani pandemici devono adeguarsi

Dopo la pandemia del 2009 cambiano le fasi pandemiche



[a]This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

Source: World Health Organization, *Pandemic influenza risk management*.[9]

E si aggiornano le linee guida OMS a cui tutti i piani pandemici devono adeguarsi

COSA doveva succedere

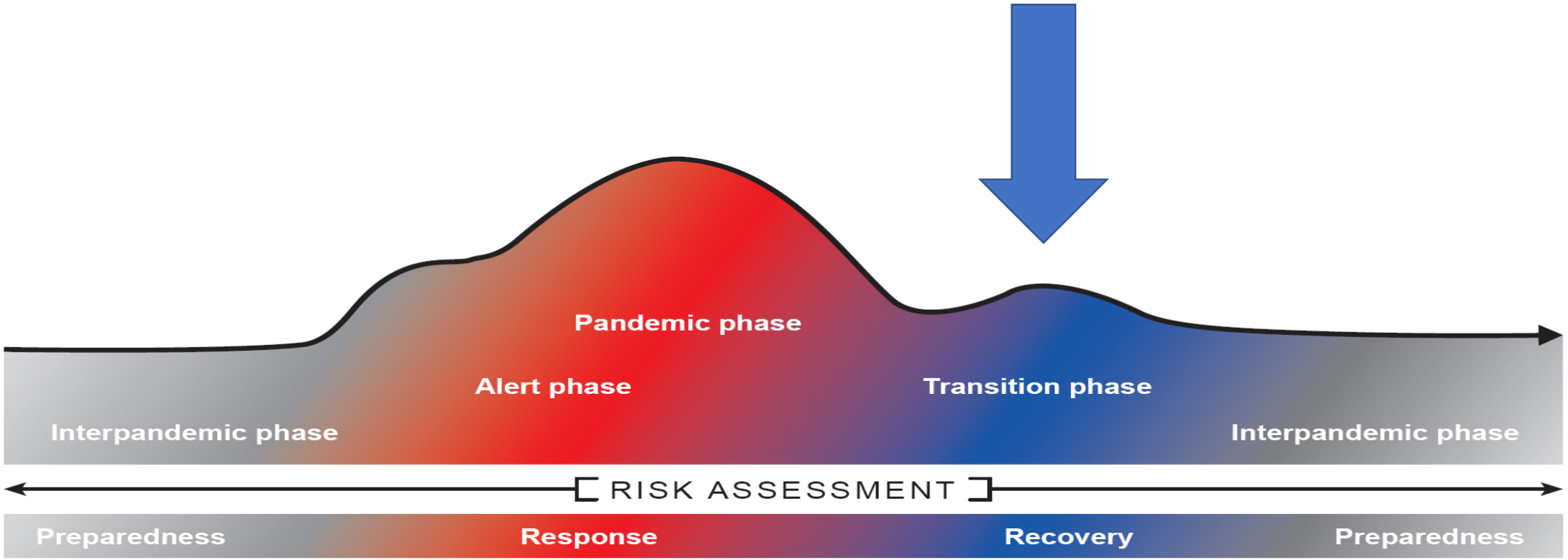
COSA è successo

COSA è andato bene

COSA è andato male

COSA dovrebbe cambiare

Cosa ci dobbiamo aspettare?



[a]This continuum is according to a "global average" of cases, over time, based on continued risk assessment and consistent with the broader emergency risk management continuum.

Source: World Health Organization, *Pandemic influenza risk management*.[9]

Global prevalence and burden of depressive and anxiety disorders in 204 countries and territories in 2020 due to the COVID-19 pandemic

COVID-19 Mental Disorders Collaborators*

Prevalenza disturbi depressivi maggiori e d'ansia: prima e dopo pandemia

	Major depressive disorder, per 100 000 population				Anxiety disorders, per 100 000 population			
	Baseline (95% UI)	Additional (95% UI)	Final (95% UI)	Percentage change (95% UI)	Baseline (95% UI)	Additional (95% UI)	Final (95% UI)	Percentage change (95% UI)
Global	2470·5 (2143·5–2870·7)	682·4 (574·1–807·2)	3152·9 (2722·5–3654·5)	27·6 (25·1–30·3)	3824·9 (3283·3–4468·1)	977·5 (824·8–1161·6)	4802·4 (4108·2–5588·6)	25·6 (23·2–28·0)
Central Europe, eastern Europe, and central Asia	2519·7 (2185·0–2911·5)	741·6 (579·1–941·3)	3261·3 (2798·6–3804·8)	29·4 (23·9–35·8)	3274·3 (2801·2–3821·9)	981·0 (774·1–1214·4)	4255·3 (3593·1–4970·8)	30·0 (24·9–35·0)
High-income	3103·3 (2735·6–3526·4)	840·1 (671·7–1030·4)	3943·3 (3466·9–4516·1)	27·1 (22·6–31·5)	5356·8 (4609·1–6233·3)	1349·0 (1044·1–1678·8)	6705·7 (5773·4–7829·4)	25·2 (20·3–30·7)
Latin America and Caribbean	2626·8 (2291·4–3034·4)	914·2 (737·4–1127·5)	3541·0 (3063·3–4097·7)	34·8 (29·5–40·7)	5705·9 (4865·4–6732·9)	1804·1 (1425·8–2225·1)	7510·0 (6397·9–8786·6)	31·7 (25·8–37·7)
North Africa and Middle East	3321·4 (2752·3–4013·2)	1235·2 (896·1–1642·5)	4556·6 (3729·1–5578·3)	37·2 (29·5–46·0)	5148·9 (4210·4–6289·4)	1664·8 (1178·0–2251·6)	6813·6 (5557·9–8391·8)	32·4 (24·9–41·1)
South Asia	2664·2 (2313·9–3099·5)	962·6 (761·6–1187·1)	3626·8 (3122·5–4232·7)	36·1 (29·7–42·8)	3019·7 (2590·4–3531·6)	1058·3 (813·0–1318·7)	4077·9 (3459·3–4786·7)	35·1 (28·2–42·0)
Southeast Asia, east Asia, and Oceania	1707·8 (1492·4–1958·7)	195·8 (121·8–281·4)	1903·6 (1656·1–2194·3)	11·5 (7·2–16·0)	3367·2 (2903·3–3891·5)	466·0 (307·2–632·0)	3833·2 (3281·8–4478·2)	13·8 (9·3–18·3)
Sub-Saharan Africa	2429·0 (2048·0–2910·2)	559·0 (423·3–722·8)	2988·0 (2513·5–3583·4)	23·0 (18·3–27·9)	3001·9 (2465·1–3671·3)	644·0 (479·0–829·9)	3645·9 (2985·7–4475·5)	21·5 (17·1–25·7)

UI=uncertainty interval.

Table 3: **Prevalence of major depressive disorder and anxiety disorders, by super-region, 2020**

Depressione maggiore: > 29%

Disturbi d'ansia: > 30%

THE LANCET

‘Long COVID: the elephant in the room’

Prevalenza popolazione generale: 2.4% in UK

22 aprile, DOI:https://doi.org/10.1016/S2213-8587(22)00111-5

THE LANCET

‘A glimpse into long COVID and symptoms’

Affaticamento
Dolore muscolare
Disturbi del sonno

Vertigini
Cefalea
Mialgia

Danno cerebrale
Sintomi neurologici
Nebbia cognitiva

Problemi di memoria
Difficiltà concentrazione
Stato confusionale

10 Giugno, DOI:https://doi.org/10.1016/S2213-2600(22)00217-X

The *Lancet* Commission on lessons for the future from the COVID-19 pandemic

1. Lentezza notifica iniziale
2. Modalità di trasmissione
3. No coordinamento tra paesi su strategie
4. Fallimento dei governi nell'esaminare l'evidenza
5. Mancanza di fondi
6. Diseguaglianze
7. Mancanza di dati
8. Norme di biosicurezza
9. Disinformazione
10. Categorie vulnerabili

Piano svizzero per pandemia influenzale

Strategie e misure di preparazione a una pandemia influenzale

«If you fail to plan, you are planning to fail»

Benjamin Franklin

"The Plague in Rome," painted in 1869, artist Jules Elie Delaunay

Peste Antonina 165-180

5 – 30 milioni di morti

Declino Impero Romano?

Pandemia H1N1

150.000 – 575.000 morti

(Influenza stagionale 290.000 – 650.000)