

Was Corona mit uns macht  
&  
was wir aus der Pandemie machen

14.1.2021

Prof. Dr. Dr. Manfred Spitzer  
Ulm

SARS-CoV-2 und Covid-19

Virus

Krankheit



Global Cases  
**92.348.199**

Cases by Country/Region/Sovereignty

- 23.071.895 US
- 10.495.147 India
- 8.256.536 Brazil
- 3.434.934 Russia
- 3.220.953 United Kingdom
- 2.868.292 France
- 2.355.839 Turkey
- 2.319.036 Italy
- 2.176.089 Spain
- 1.981.013 Germany
- 1.831.980 Colombia
- 1.757.429 Argentina
- 1.571.901 Mexico
- 1.404.905 Poland
- 1.305.339 Iran
- 1.278.303 South Africa
- 1.166.958 Ukraine
- 1.040.231 Peru
- 901.740 Netherlands
- 858.043 Indonesia
- 855.600 Czechia
- 686.211 Canada
- 681.392 Romania

Admin0 Admin1 Admin2

Last Updated at (M/D/YYYY)  
**1/14/2021, 5:22 vorm.**



Cumulative Cases Active Cases Incidence Rate Case-Fatality Ratio Testing Rate

**191**  
countries/regions

Lancet Inf Dis Article: [Here](#). Mobile Version: [Here](#). Data sources: [Full list](#). Downloadable database: [GitHub](#), [Feature Layer](#).  
Lead by JHU CSSE. Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support: JHU, NSF, Bloomberg Philanthropies and Stavros Niarchos Foundation. Resource support: [Slack](#), [Github](#) and [AWS](#). Click [here](#) to **donate** to the CSSE dashboard team, and other JHU COVID-19 Research Efforts. [FAQ](#). Read more in this [blog](#). [Contact US](#).

Cases and Death counts include confirmed and probable (where reported)

Global Deaths  
**1.977.912**

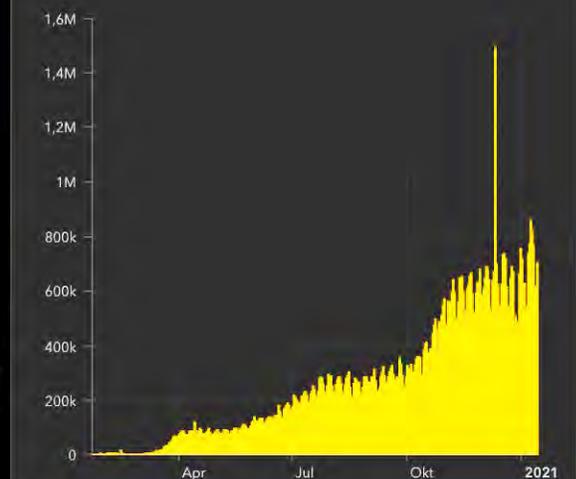
- 384.653 deaths US
- 205.964 deaths Brazil
- 151.529 deaths India
- 136.917 deaths Mexico
- 84.910 deaths United Kingdom
- 80.326 deaths Italy
- 69.168 deaths France
- 62.463 deaths Russia
- 56.457 deaths Iran
- 52.878 deaths Spain
- 47.124 deaths

Global Deaths

US State Level Deaths, Recovered

- 40.192 deaths, **112.023** recovered New York US
- 31.573 deaths, **recovered** California US
- 31.277 deaths, **1.612.188** recovered Texas US
- 23.396 deaths, **recovered** Florida US
- 20.161 deaths, **60.769** recovered New Jersey US
- 19.617 deaths, **recovered** Illinois US
- 18.412 deaths, **556.041** recovered Pennsylvania US
- 14.336 deaths, **415.079** recovered Michigan US
- 13.359 deaths, **293.522** recovered

US Deaths, Recove...



Daily Cases

# Verlauf der Pandemie

Fälle

Tote

30.000 bestätigte Neuinfektionen pro Tag

25.000

20.000

15.000

10.000

5.000

Feb. März Apr. Mai Juni Juli Aug. Sep. Okt. Nov. Dez.

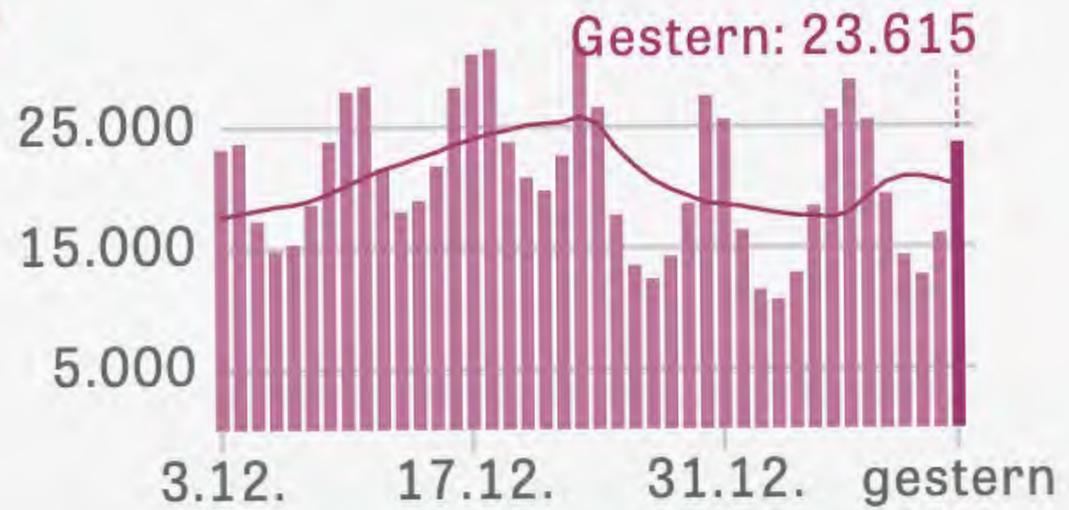


# Deutschland



**140.512** Neuinfektionen / 7 Tage

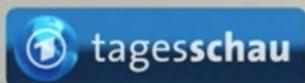
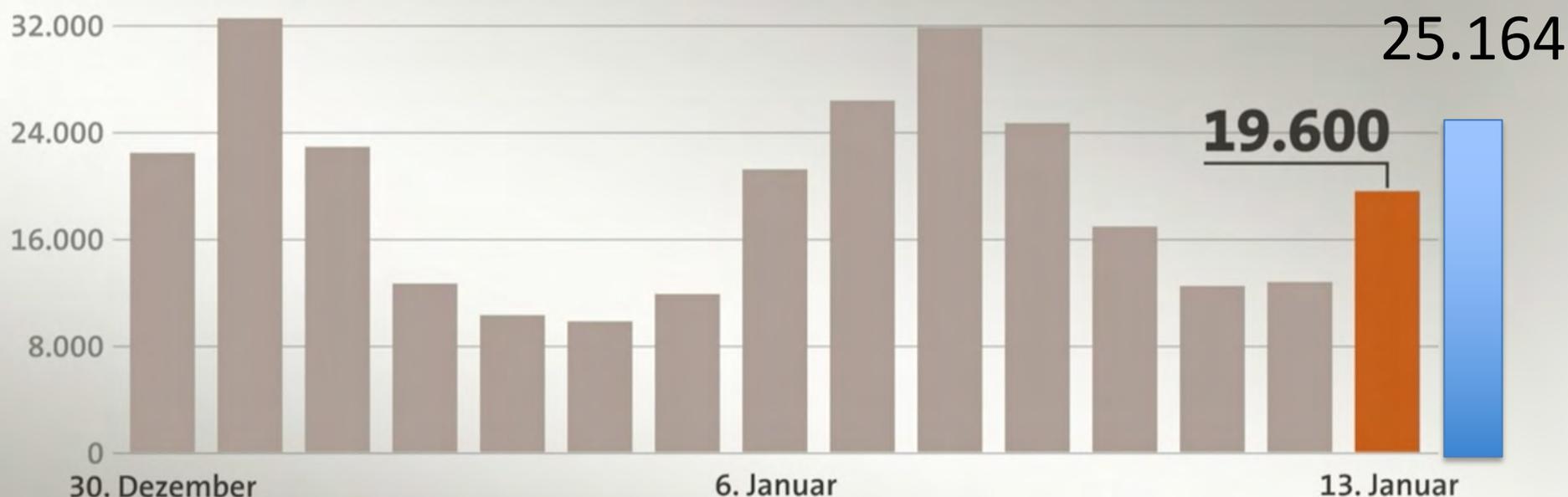
1.981.933 gesamt, 44.486 Tote



# Coronavirus Neuinfektionen

Deutschland | nach Datum der Veröffentlichung

24  
HD



Quelle: Robert Koch-Institut

gern • Corona-Krise: Spahn verteidigt europäischen Weg bei Impfstoffbeschaffung • Corona-Krise: Mutationen laut W

Aktuelle Sendung: tagesschau 20:00 Uhr

# Verlauf der Pandemie

Fälle

Tote

1.200 gemeldete Todesfälle pro Tag

1.000

800

600

400

200



Feb. März Apr. Mai Juni Juli Aug. Sep. Okt. Nov. Dez.

**Coronavirus**

# **RKI meldet mit 1.244 Toten neuen Höchstwert**

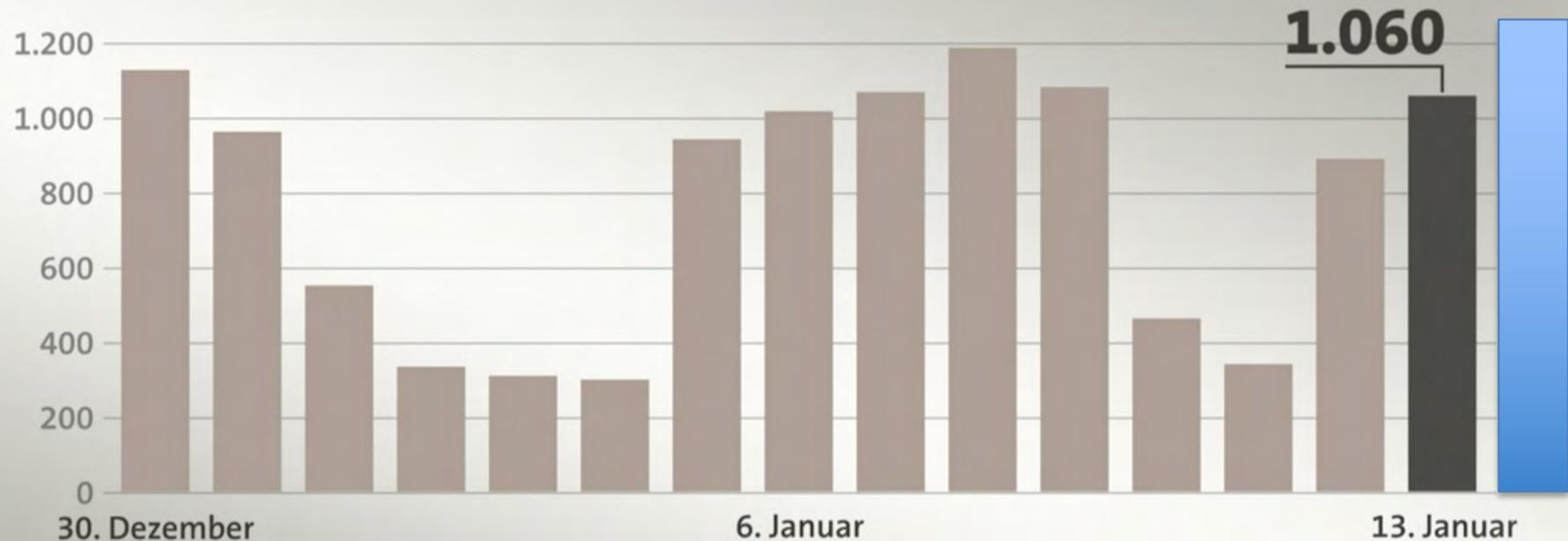
Die Zahl der Coronavirus-Todesfälle steigt weiter an. Die meisten Verstorbenen gibt es in Sachsen. Auch bei den Neuinfektionen zeigt die Kurve wieder nach oben.

14. Januar 2021, 2:22 Uhr Aktualisiert am 14. Januar 2021, 6:48 Uhr Quelle: ZEIT ONLINE, Reuters, mp

# Todesfälle mit Covid-19

Deutschland | Datum der Veröffentlichung

24  
HD  
1244

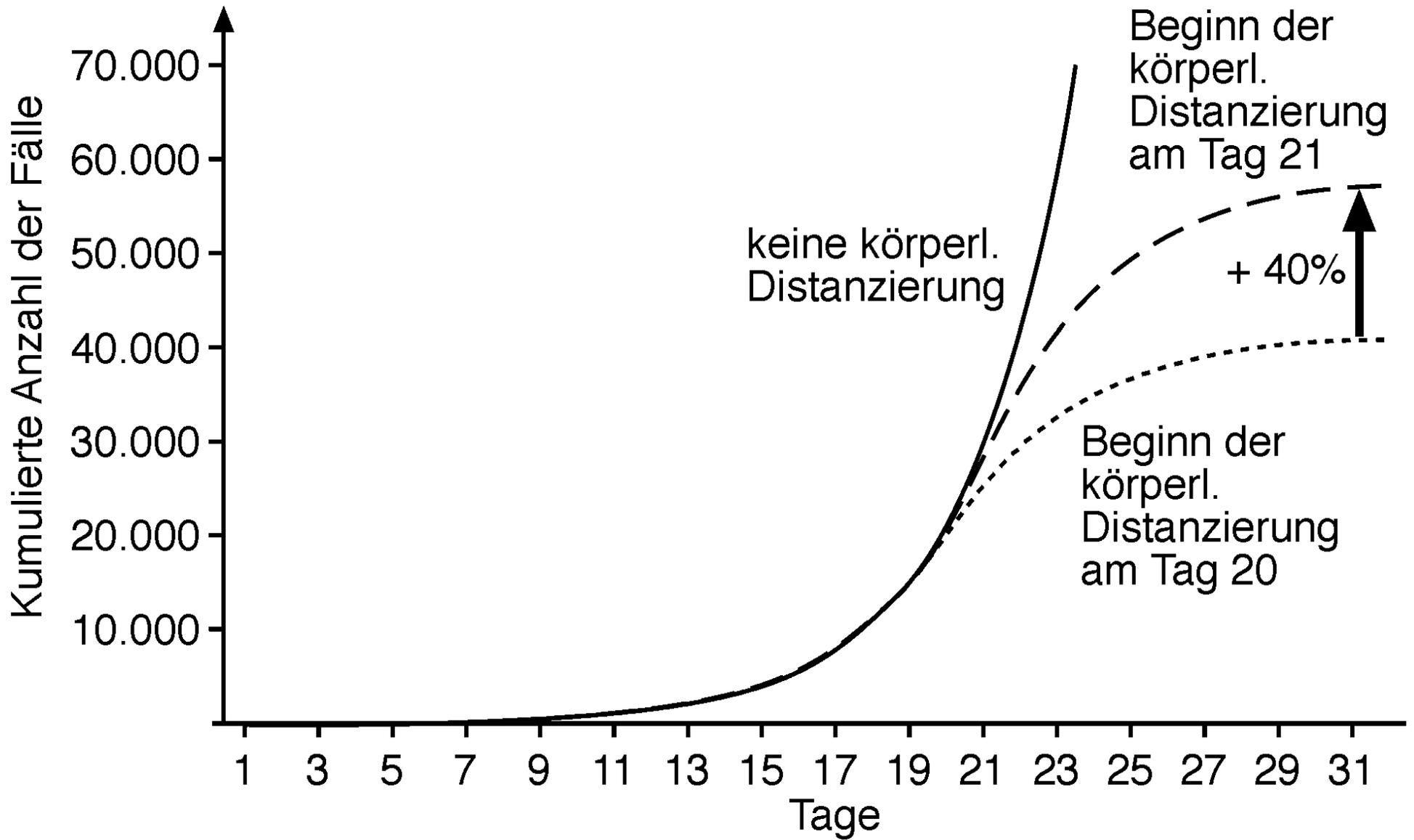


Quelle: Robert Koch-Institut

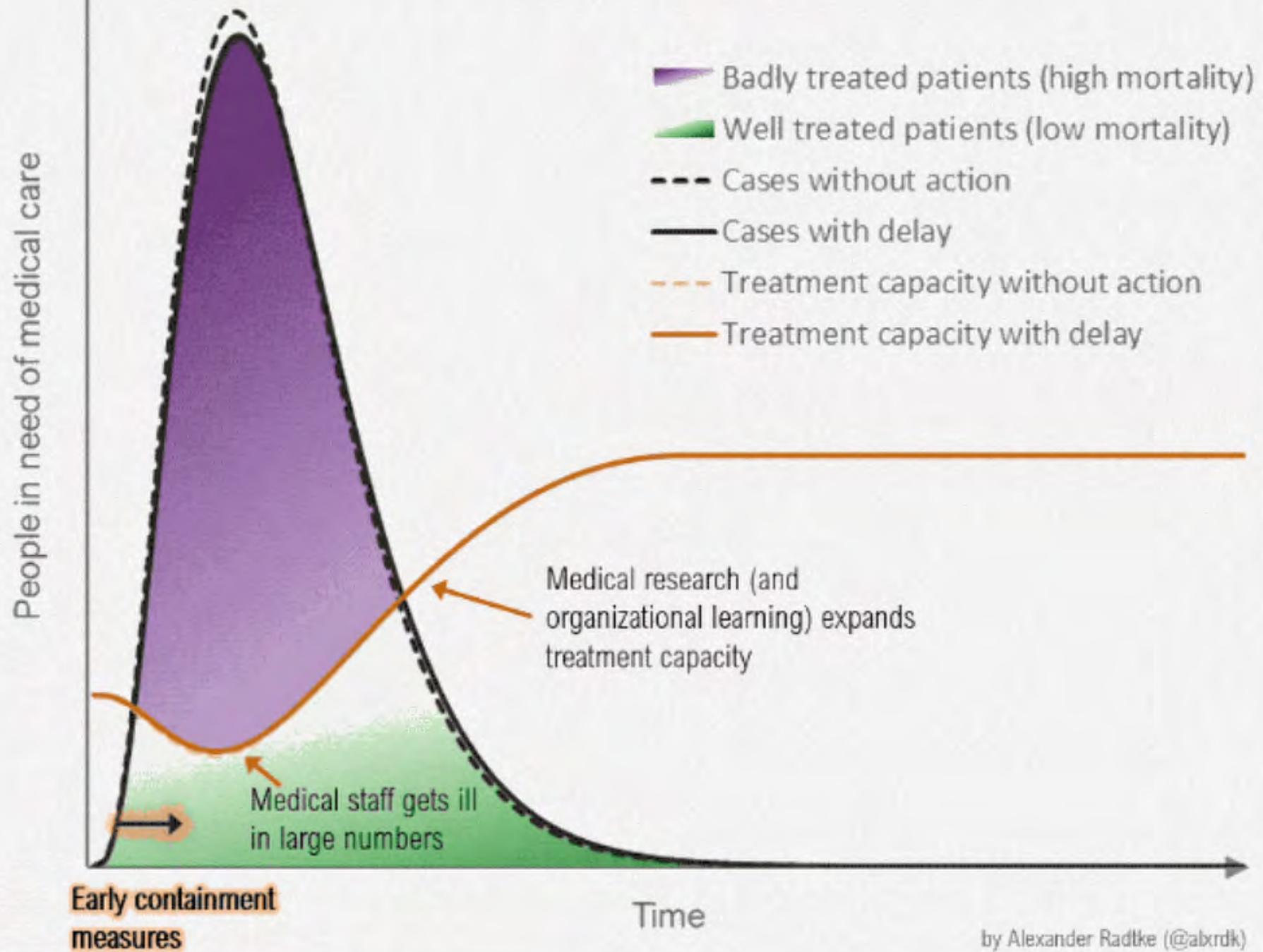
Europäischen Weg bei Impfstoffbeschaffung • Corona-Krise: Mutationen laut Weltgesundheitsorganisation in 50 Ländern

Aktuelle Sendung: tagesschau 20:00 Uhr

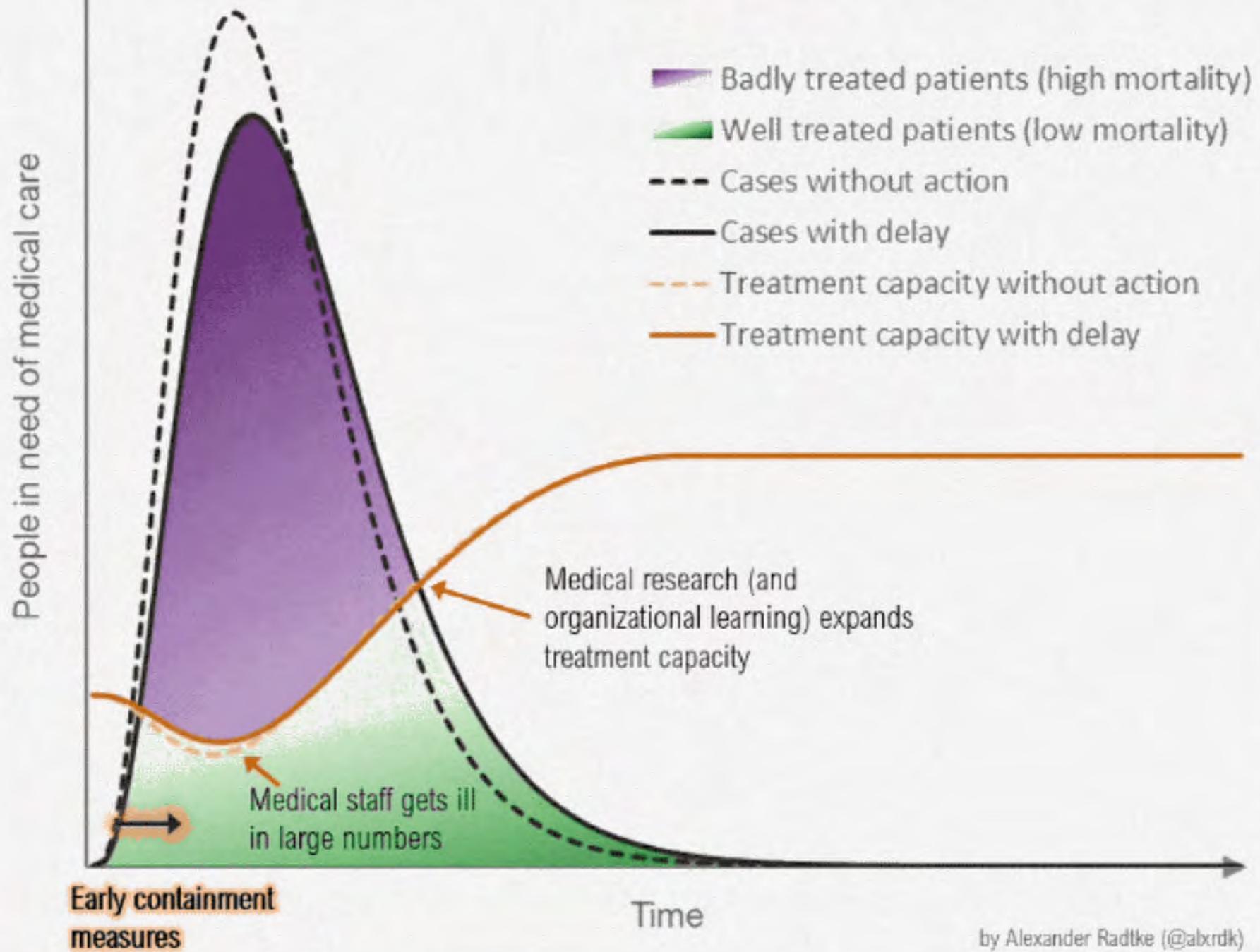




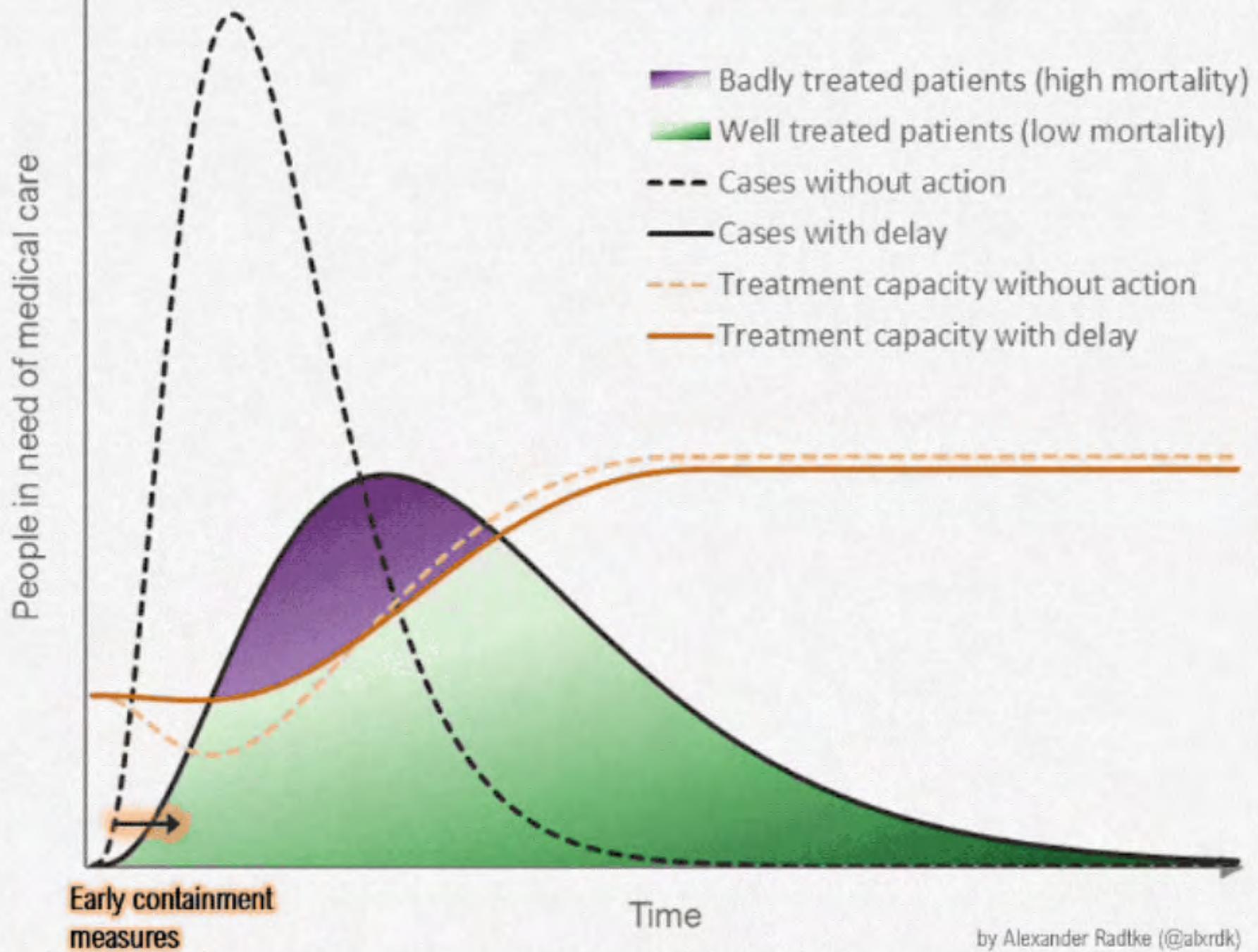
# Why it is so important to **act early** on COVID-19



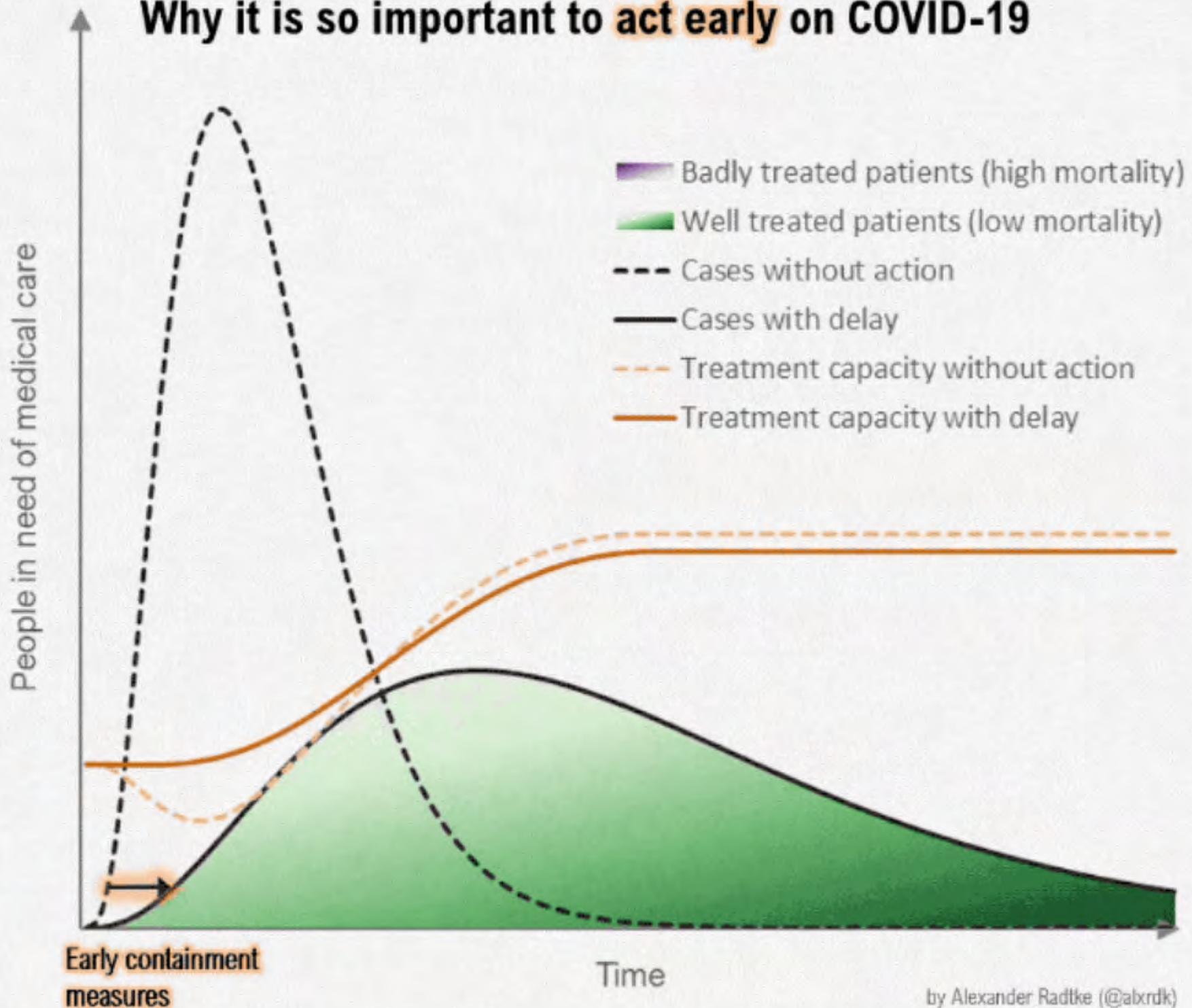
# Why it is so important to **act early** on COVID-19



# Why it is so important to **act early** on COVID-19



# Why it is so important to **act early** on COVID-19



# CORONA-KRISE

**VIRUS-RADAR**  
So sieht es in  
Ihrem Kreis aus 

re-Sendungen heute +++ 11 Uhr +++ 12 Uhr +++ 14 Uhr +++ 15 Uhr +++ 16 Uhr +++ 18 Uhr +++ 18.30 Uhr ++

Corona-Lage in **New York** immer dramatischer

# Beatmungsgeräte reichen nur noch **sechs Tage!**

**MIT  
VIDEO** 

**Bild** 

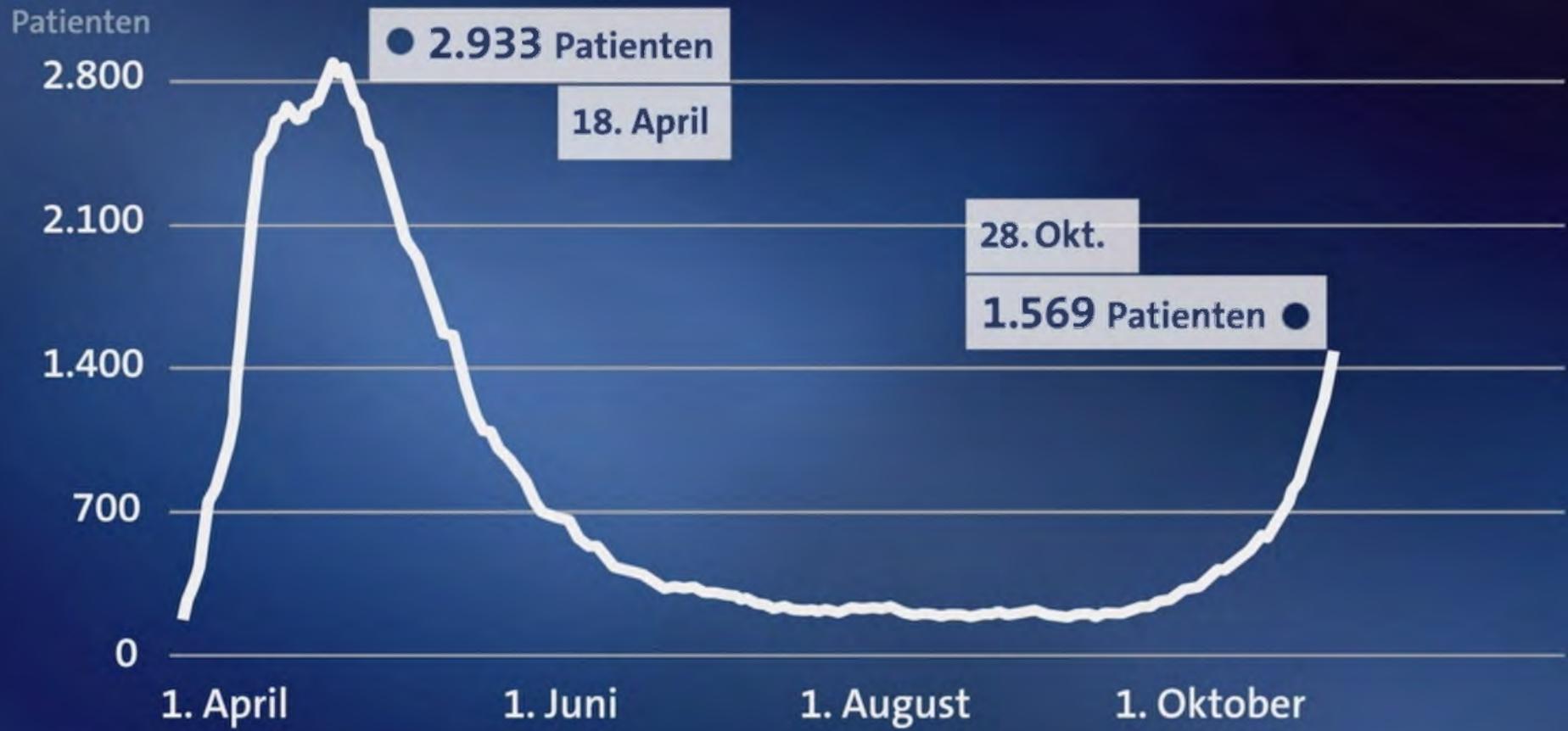
Stadt funktioniert 45 Kühllastwagen als temporäre Leichenhalle um





# INTENSIVPATIENTEN

Coronaerkrankte auf Intensivstationen

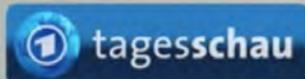
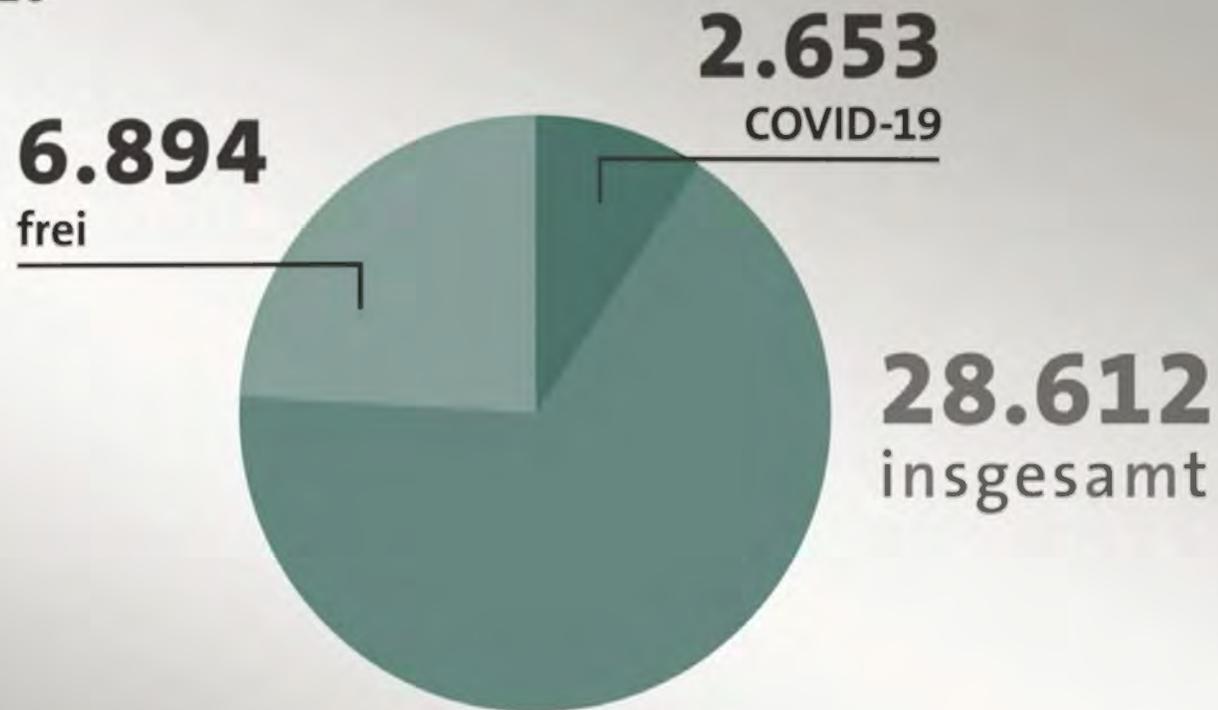


ARD EXTRA

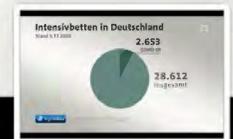
Quelle: DIVI-Intensivregister

# Intensivbetten in Deutschland

Stand 5.11.2020



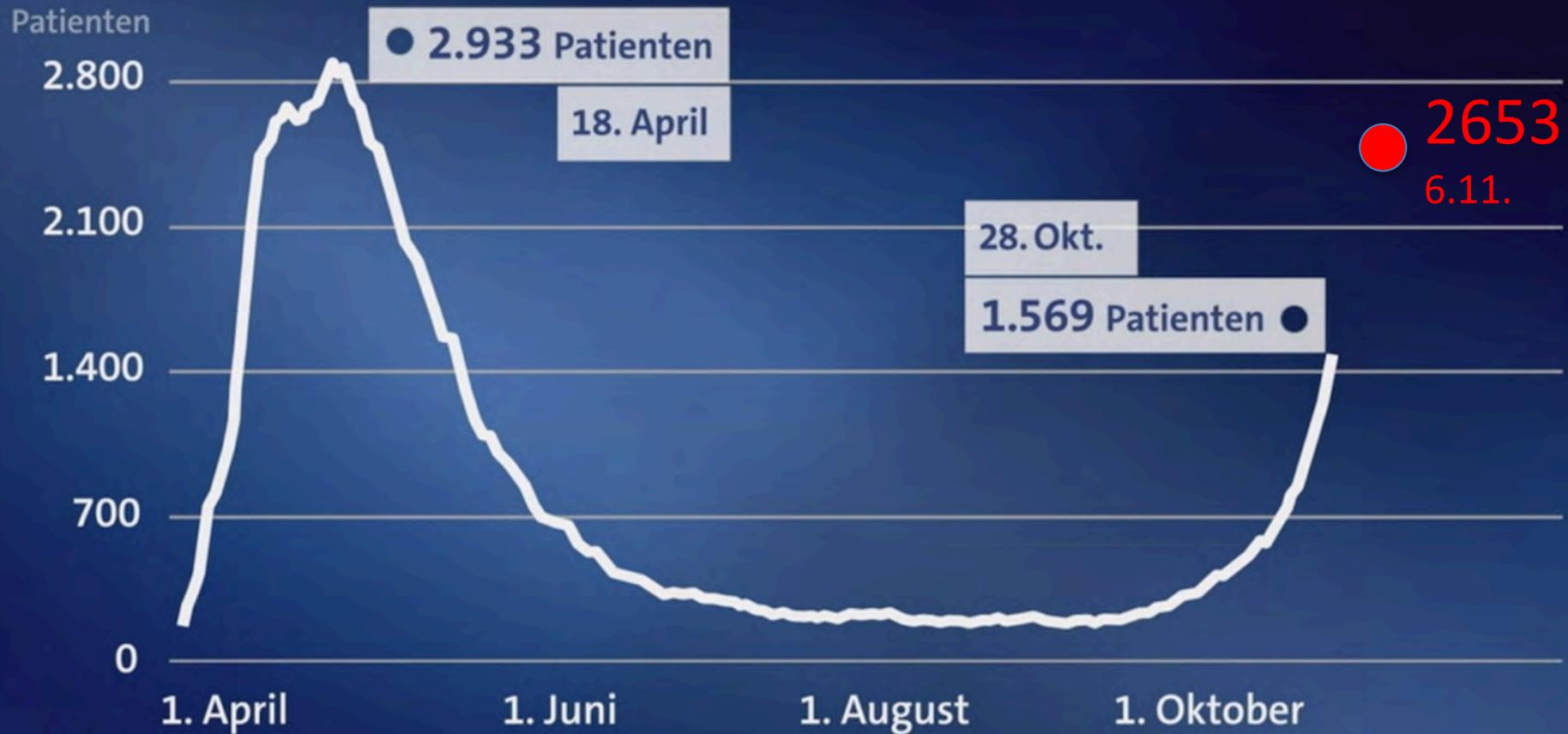
Quelle: DIVI/Intensivbettenregister





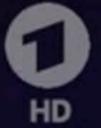
# INTENSIVPATIENTEN

Coronaerkrankte auf Intensivstationen



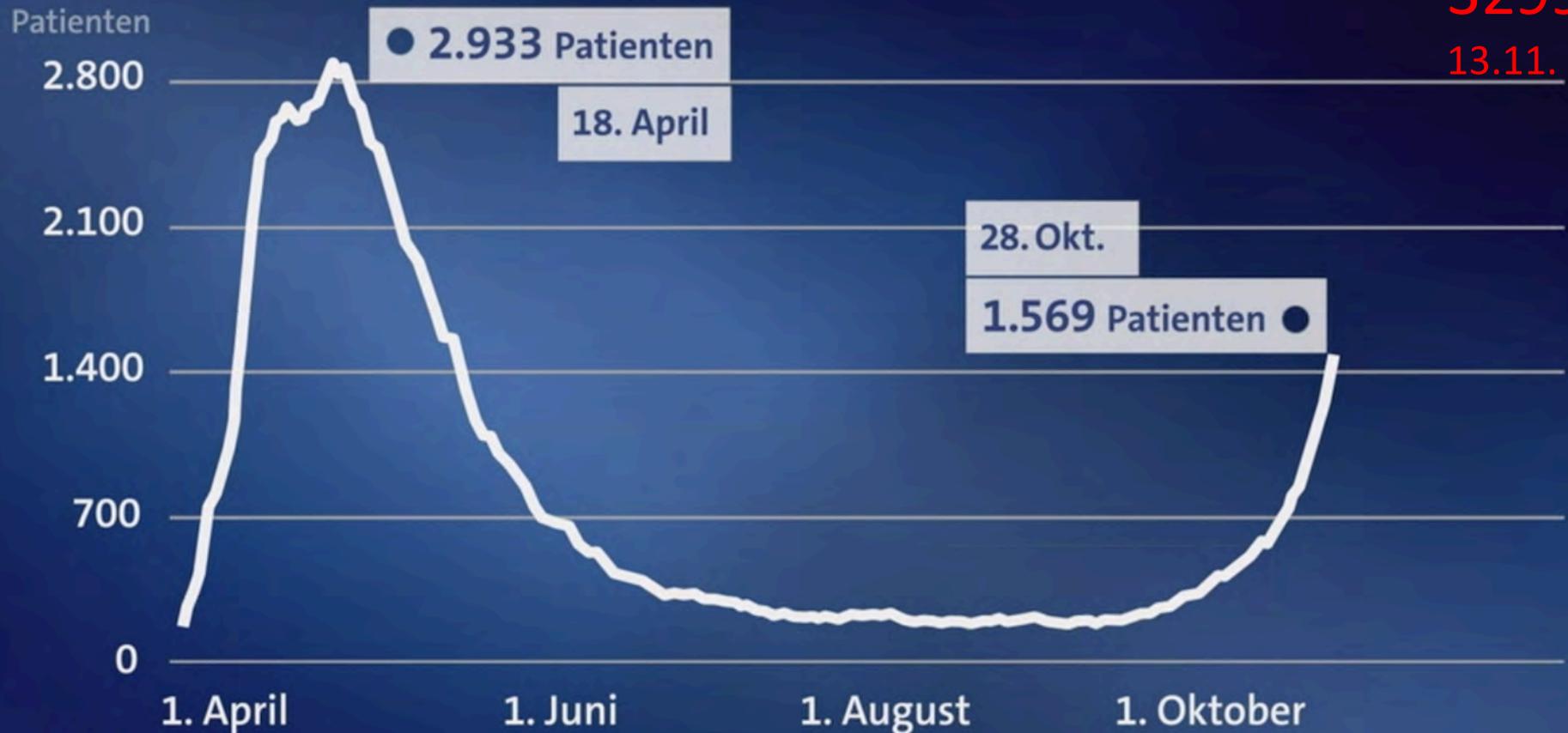
ARD EXTRA

Quelle: DIVI-Intensivregister



# INTENSIVPATIENTEN

Coronaerkrankte auf Intensivstationen

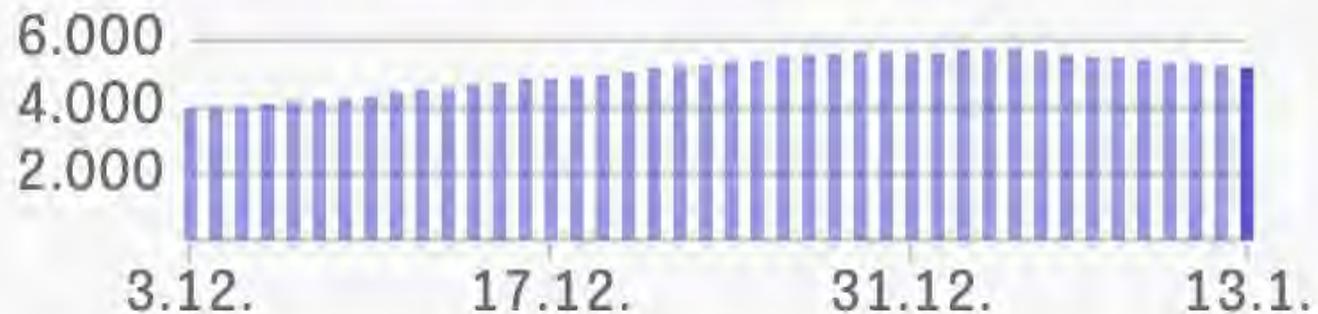


ARD EXTRA

Quelle: DIVI-Intensivregister

# Intensivstationen

Aktuell **5.185** Covid-19-Patienten in Intensivversorgung



Aktuelle Bettenbelegung: **19 %** Covid-19 • **64 %** andere • **16 %** frei



# Livestream

## Covid-19-Impfungen

13.1.2021 (24 HD)



Impfquote: **0,91%**



**758.093**

 Quelle: Robert Koch-Institut

teidigt europäischen Weg bei Impfstoffbeschaffung • Corona-Krise: Mutationen laut Weltgesundheitsorganisation in 50

Aktuelle Sendung: tagesschau 20:00 Uhr

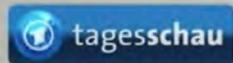
Sendungsarchiv

Livestream

# Impfquoten im Bundesvergleich



Mecklenburg-Vorpommern	1,81 %
Schleswig-Holstein	1,49 %
Sachsen-Anhalt	1,24 %
Bayern	1,15 %



Quelle: Robert Koch-Institut

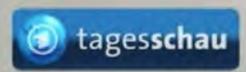
e Debatte über FFP2-Maskenpflicht in Bayern • Coronavirus-Pandemie: 19.600 Neuinfektionen und 1060 neue Todesfälle

Aktuelle Sendung: tagesschau 20:00 Uhr

Sendungsarchiv

# Livestream

## Impfquoten im Bundesvergleich



Quelle: Robert Koch-Institut

n Bayern • Coronavirus-Pandemie; 19.600 Neuinfektionen und 1060 neue Todesfälle gemeldet • Regierungskrise: Koal

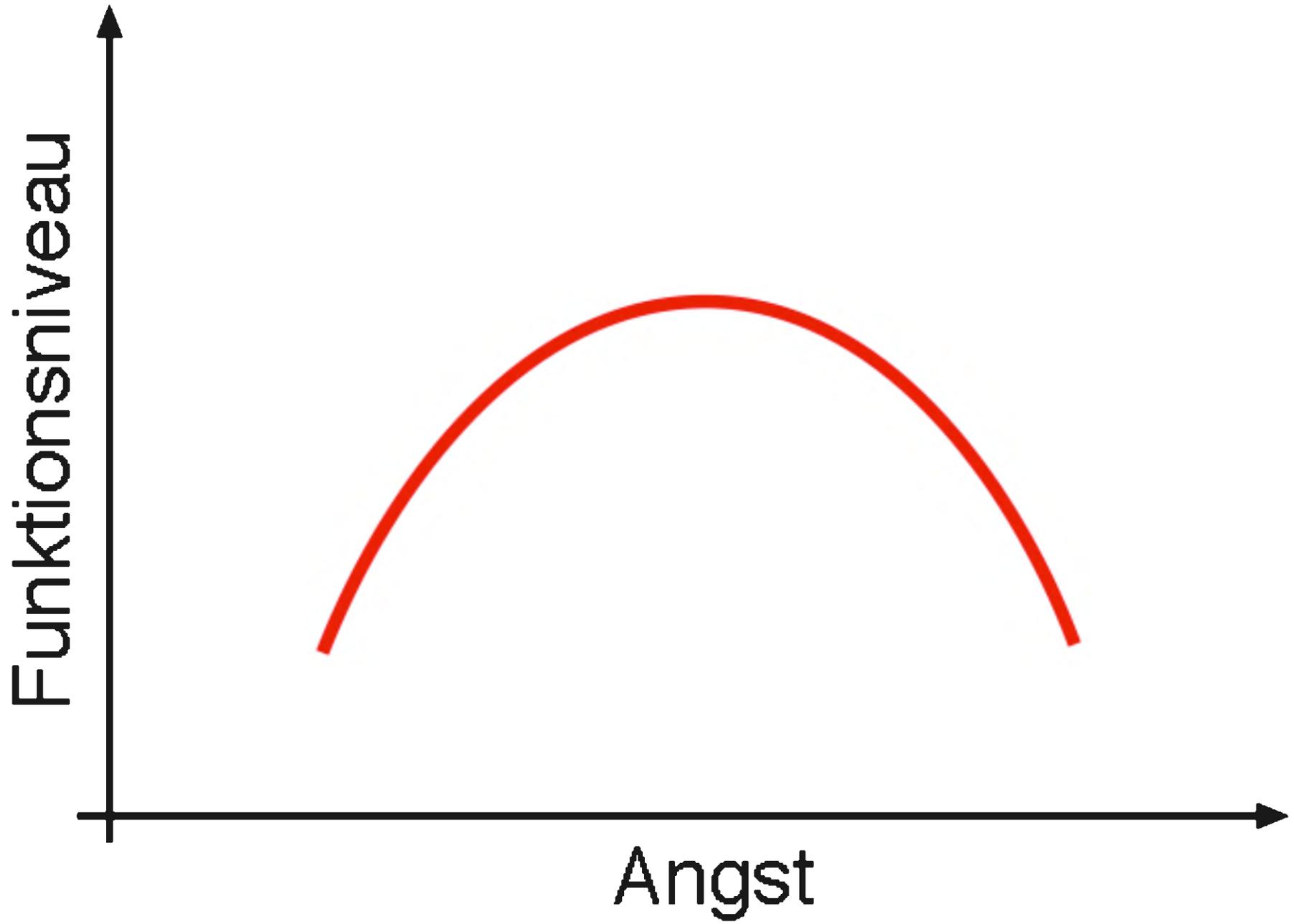
Aktuelle Sendung: tagesschau 20:00 Uhr

Sendungsarchiv



# Was macht Corona mit uns

- Angst
- Erschöpfung
- Einsamkeit
- Sucht
- Mediensucht
- Langeweile



# Rückgang bei Facharztterminen

Umfrage unter Berufsverbänden und KZV



Onkologen

 **-30%**



Kardiologen

 **-50%**



Zahnärzte

 **-80%**



Quelle: Norddeutscher Rundfunk



Francesca Mangiardi, an Italian nurse that crumbled in the middle of the war with the Coronavirus

# Einsam, aber resilient – Die Menschen haben den Lockdown besser verkraftet als vermutet

Theresa Entringer, Hannes Kröger

aktuelle Welt

- Probleme haben Frauen und junge Menschen (Deutschland)

# The mental health effects of the first two months of lockdown and social distancing during the Covid-19 pandemic in the UK

IFS Working Paper W20/16

James Banks  
Xiaowei Xu



Economic  
and Social  
Research Council

- Probleme haben Frauen und junge Menschen  
(in England)

# Was macht Corona mit uns

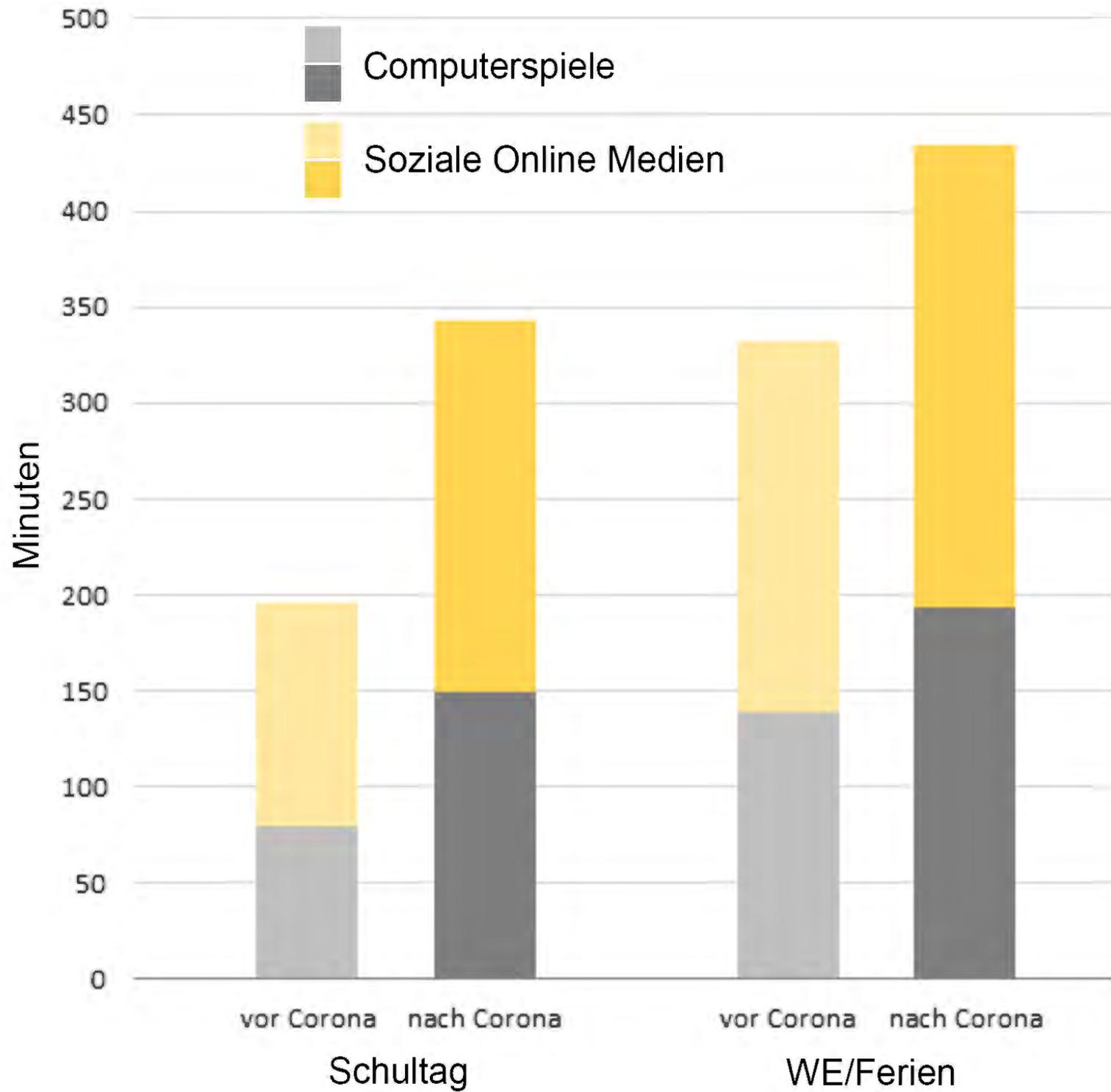
- Angst
- Erschöpfung
- Einsamkeit
- Sucht
- Mediensucht
- Langeweile

Ende Juli 2020

# Mediensucht 2020 – Gaming und Social Media in Zeiten von Corona

DAK-Längsschnittstudie: Befragung von Kindern,  
Jugendlichen (12 – 17 Jahre) und deren Eltern





# Warum?

- 90% der Kinder und Jugendlichen: Langeweile
- 75% der Eltern: Langeweile

# Langeweile hat eine Funktion

- ähnlich wie Schmerzen (weisen auf körperl. Schaden hin)
- weisen auf Existenzproblem hin, dass wir gerade kein Ziel haben
- Wir werden unruhig, erleben das als unangenehm und wollen ein neues Ziel
- Langeweile macht uns kreativ, lässt uns Neues suchen und ausprobieren.
- Was wir *nicht* tun dürfen, ist Zeitvertreib!
- Denn dann erfüllt sie *nicht* ihre Funktion.

Was machen wir mit Corona?

Abstand halten...

# Public health interventions and epidemic intensity during the 1918 influenza pandemic

Richard J. Hatchett<sup>\*†</sup>, Carter E. Mecher<sup>‡§</sup>, and Marc Lipsitch<sup>¶</sup>

<sup>\*</sup>Division of Allergy, Immunology, and Transplantation, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MD 20892; <sup>†</sup>Department of Veterans Affairs, VA Southeast Network, 3700 Crestwood Parkway, Duluth, GA 30096; <sup>§</sup>Homeland Security Council, Executive Office of the President, EEOB, 1650 Pennsylvania Avenue NW, Washington, DC 20502; and <sup>¶</sup>Department of Epidemiology and Department of Immunology and Infectious Diseases, Harvard School of Public Health, 677 Huntington Avenue, Boston, MA 02115

Edited by Burton H. Singer, Princeton University, Princeton, NJ, and approved February 14, 2007 (received for review December 9, 2006)

Daten zur letzten großen Pandemie 1918/19 mit weltweit 50 Millionen Toten  
(eher zu vorsichtig geschätzt)

**Nonpharmaceutical interventions (NPIs)** intended to reduce infectious contacts between persons form an integral part of plans to mitigate the impact of the next influenza pandemic. Although the potential benefits of NPIs are supported by mathematical models, the historical evidence for the impact of such interventions in past pandemics has not been systematically examined. We obtained data on the timing of 19 classes of NPI in 17 U.S. cities during the 1918 pandemic and tested the hypothesis that early implementation of multiple interventions was associated with reduced disease transmission. Consistent with this hypothesis, cities in which multiple interventions were implemented at an early phase of the epidemic had peak death rates  $\approx 50\%$  lower than those that did not and had less-steep epidemic curves. Cities in which multiple interventions were implemented at an early phase of the epidemic also showed a trend toward lower cumulative excess mortality, but the difference was smaller ( $\approx 20\%$ ) and less statistically significant than that for peak death rates. This finding was not unexpected, given that few cities maintained NPIs longer than 6 weeks in 1918. Early implementation of certain interventions, including closure of schools, churches, and theaters, was associated with lower peak death rates, but no single intervention showed an association with improved aggregate outcomes for the 1918 phase of the pandemic. These findings support the hypothesis that rapid implementation of multiple NPIs can significantly reduce influenza transmission, but that viral spread will be renewed upon relaxation of such measures.



LIVE -50:56

Navigation icons: play, volume, and full screen.

29.3.2020



Berlin, Pfingstsonntag, 3.6.2020



Berlin, Ende Oktober 2020

# Abstand halten ist wirklich gut!

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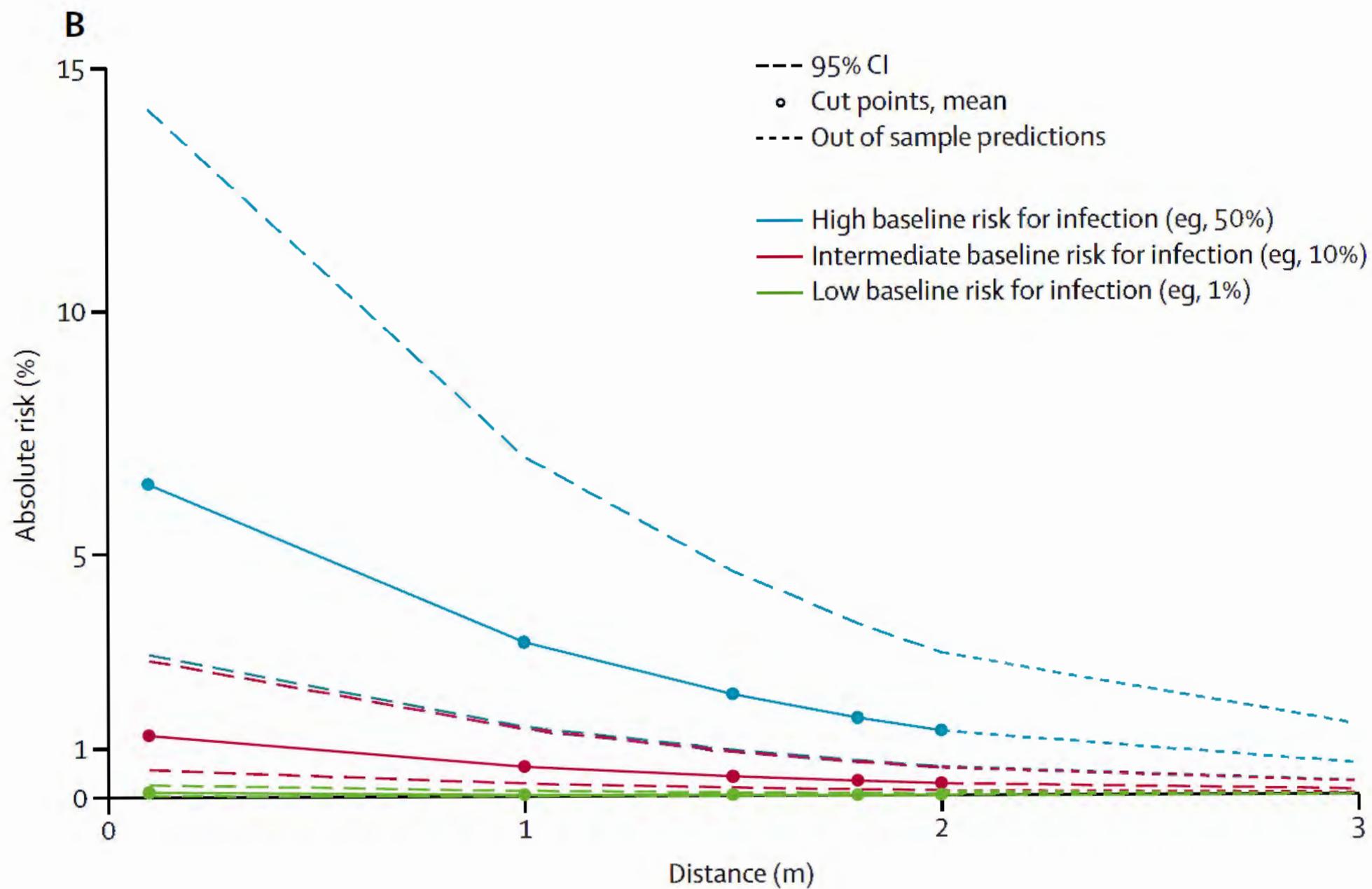
## Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis

*Derek K Chu, Elie A Akl, Stephanie Duda, Karla Solo, Sally Yaacoub, Holger J Schünemann, on behalf of the COVID-19 Systematic Urgent Review Group Effort (SURGE) study authors\**

### Summary

**Background** Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) causes COVID-19 and is spread person-to-person through close contact. We aimed to investigate the effects of physical distance, face masks, and eye protection on virus transmission in health-care and non-health-care (eg, community) settings.

**Methods** We did a systematic review and meta-analysis to investigate the optimum distance for avoiding person-to-person virus transmission and to assess the use of face masks and eye protection to prevent transmission of viruses.





Cities that reopen can serve as mini laboratories helping to chart the path forward. In San Francisco's Dolores Park, people sit in circles drawn to promote social distancing. (David Paul Morris/Bloomberg)

San Francisco 30.5.2020

ABER:

Körperlicher Abstand  
ist *nicht* gleich  
soziale Isolation

UND

Soziale Isolation (Alleinsein)  
ist *nicht* gleich  
Einsamkeit

**Einsamkeit ist tödlich**

# Social Relationships and Mortality Risk: A Meta-analytic Review

Julianne Holt-Lunstad<sup>1</sup>\*, Timothy B. Smith<sup>2</sup>, J. Bradley Layton<sup>3</sup>

**1** Department of Psychology, Brigham Young University, Provo, Utah, United States of America, **2** Department of Counseling Psychology, Brigham Young University, Provo, Utah, United States of America, **3** Department of Epidemiology, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, United States of America

## Abstract

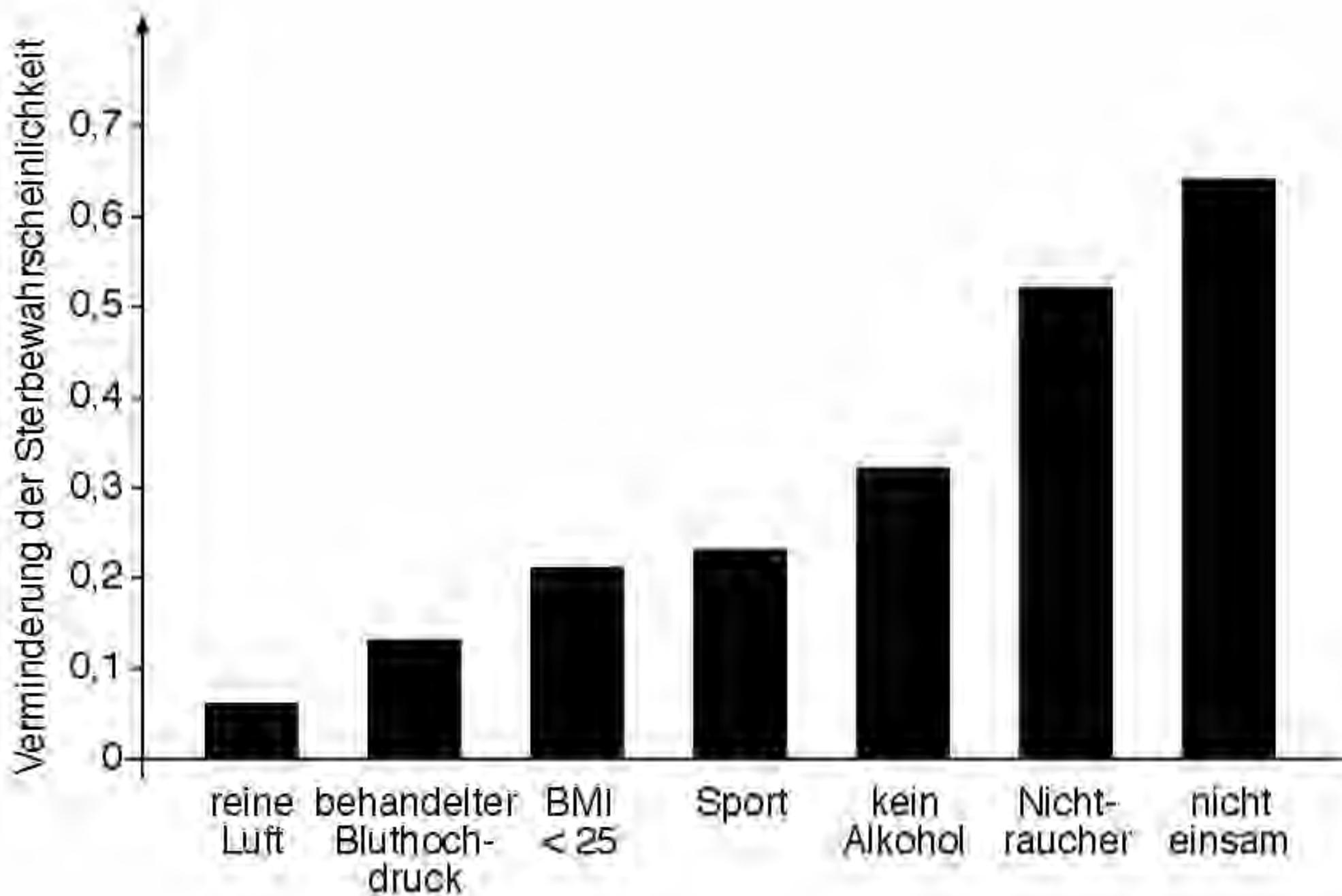
**Background:** The quality and quantity of individuals' social relationships has been linked not only to mental health but also to both morbidity and mortality.

**Objectives:** This meta-analytic review was conducted to determine the extent to which social relationships influence risk for mortality, which aspects of social relationships are most highly predictive, and which factors may moderate the risk.

**Data Extraction:** Data were extracted on several participant characteristics, including cause of mortality, initial health status, and pre-existing health conditions, as well as on study characteristics, including length of follow-up and type of assessment of social relationships.

**Results:** Across 148 studies (308,849 participants), the random effects weighted average effect size was  $OR = 1.50$  (95% CI 1.42 to 1.59), indicating a 50% increased likelihood of survival for participants with stronger social relationships. This finding remained consistent across age, sex, initial health status, cause of death, and follow-up period. Significant differences were found across the type of social measurement evaluated ( $p < 0.001$ ); the association was strongest for complex measures of social integration ( $OR = 1.91$ ; 95% CI 1.63 to 2.23) and lowest for binary indicators of residential status (living alone versus with others) ( $OR = 1.19$ ; 95% CI 0.99 to 1.44).

**Conclusions:** The influence of social relationships on risk for mortality is comparable with well-established risk factors for mortality.



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# **Loneliness and Social Isolation as Risk Factors for Mortality: A Meta-Analytic Review**

**Julianne Holt-Lunstad<sup>1</sup>, Timothy B. Smith<sup>2</sup>, Mark Baker<sup>1</sup>,  
Tyler Harris<sup>1</sup>, and David Stephenson<sup>1</sup>**

<sup>1</sup>Department of Psychology and <sup>2</sup>Department of Counseling Psychology, Brigham Young University

Perspectives on Psychological Science  
2015, Vol. 10(2) 227–237

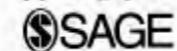
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DOI: 10.1177/1745691614568352

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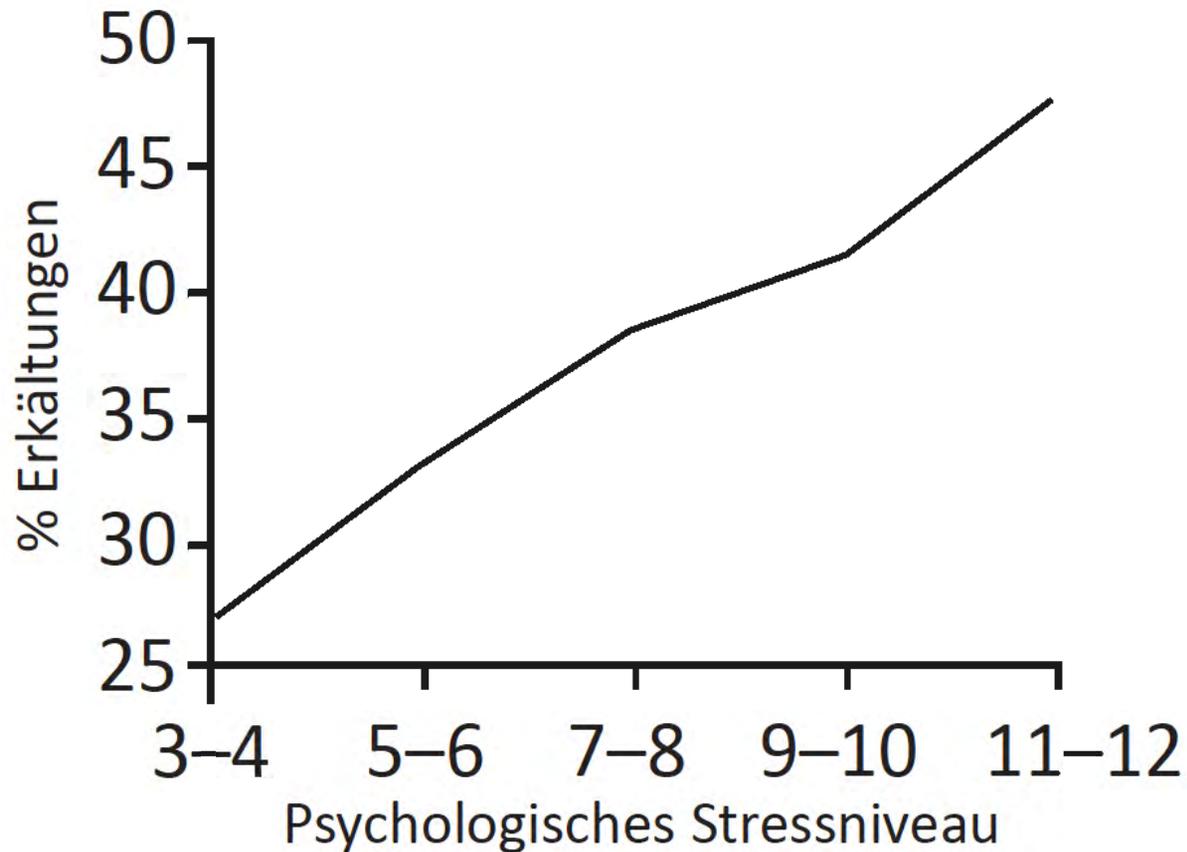
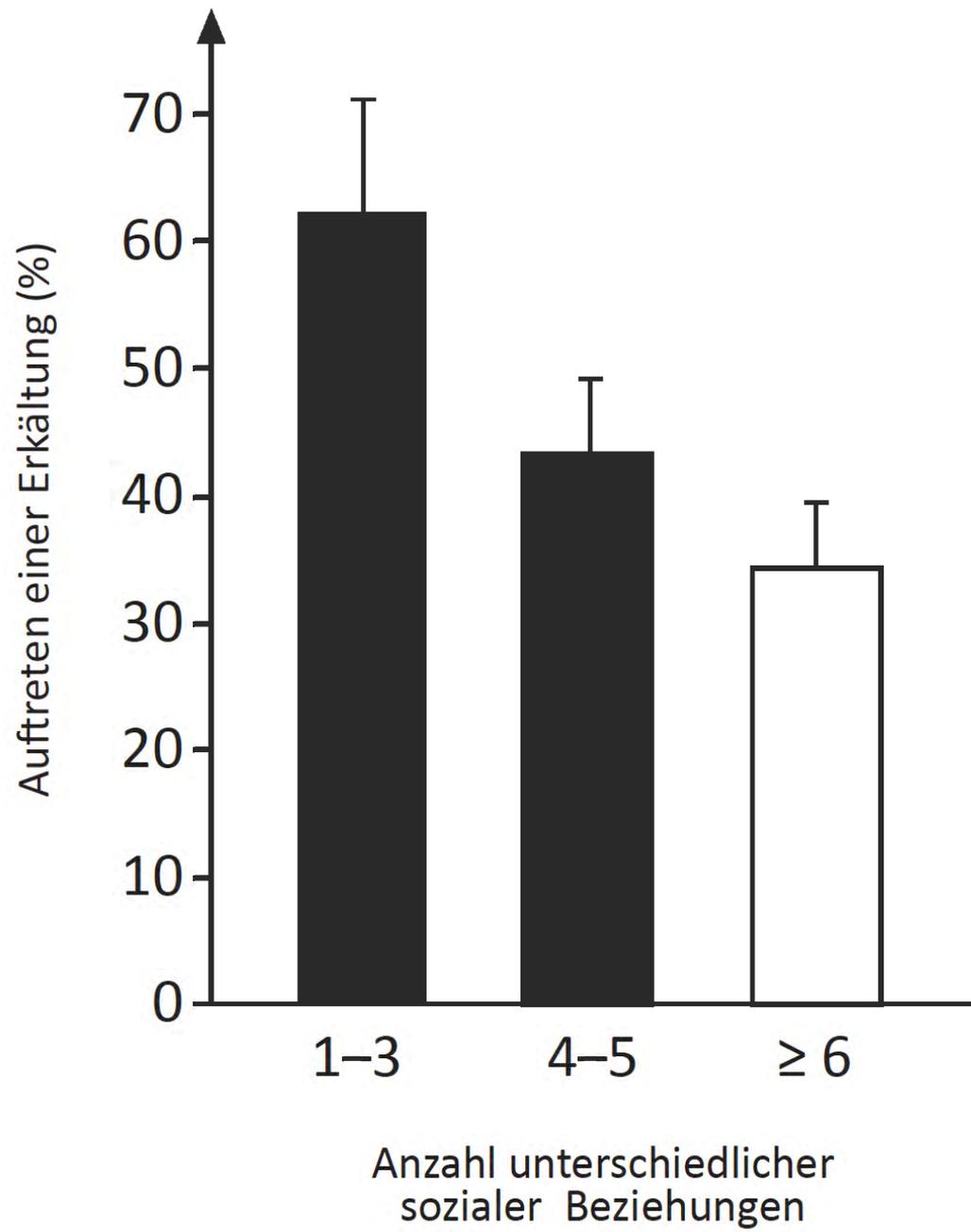
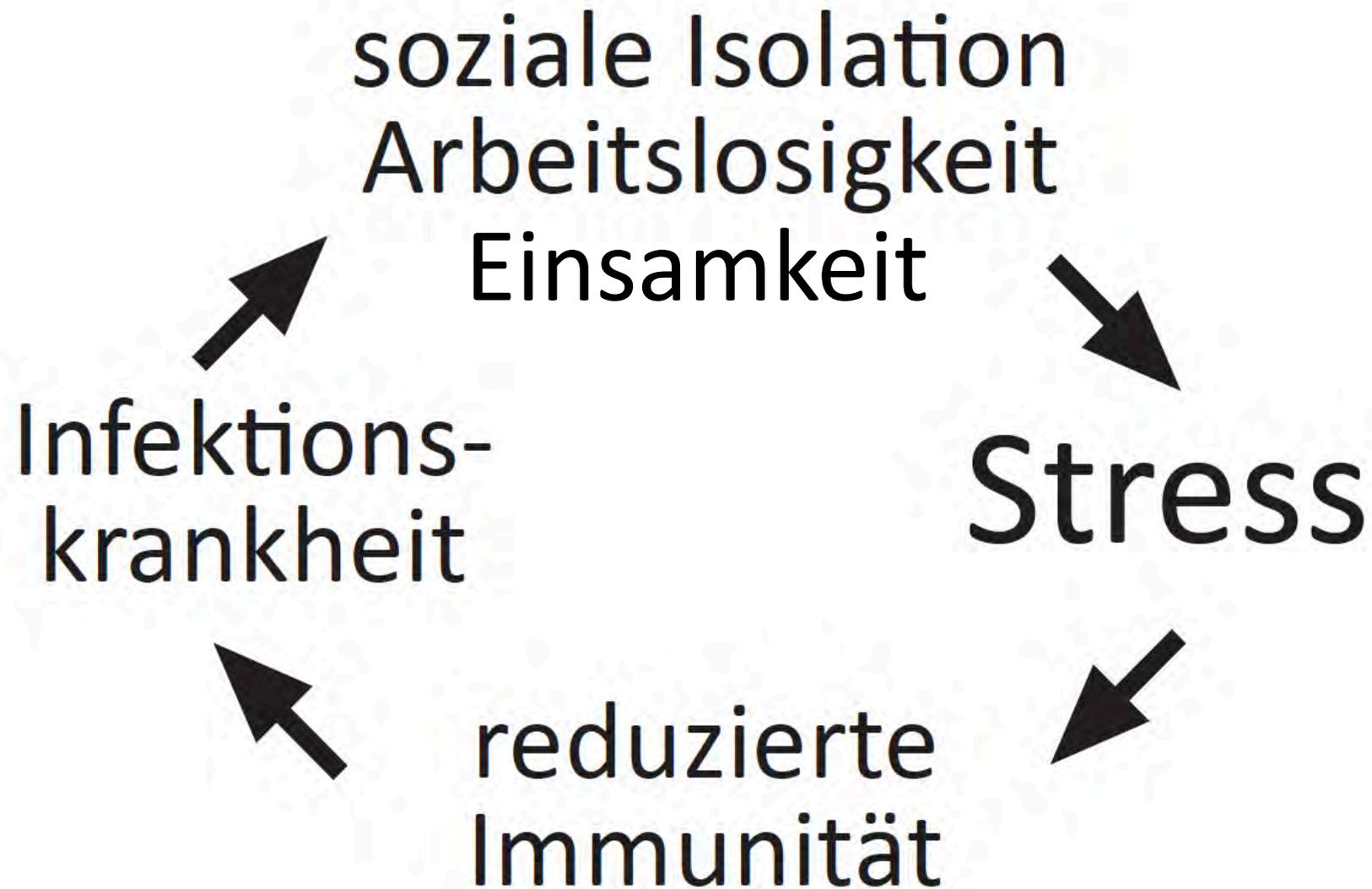


Abb. 7.1: Zunahme der relativen Häufigkeit (in Prozent), eine Erkältung zu bekommen, in Abhängigkeit vom erlebten psychischen Stress.<sup>77</sup>





Einsamkeit nimmt uns unsere einzige  
Abwehr gegen das Virus

# Corona: Ein Moving Target

# Beispiel: Masken

Medizin

# Chirurgische Gesichtsmasken halten Coronaviren zurück

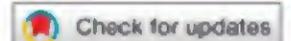
Montag, 6. April 2020

aerzteblatt.de

/ Ärzteblatt / cme / Arztstellen / Studieren / English Edition



/picture alliance



# Respiratory virus shedding in exhaled breath and efficacy of face masks

Nancy H. L. Leung<sup>1</sup>, Daniel K. W. Chu<sup>1</sup>, Eunice Y. C. Shiu<sup>1</sup>, Kwok-Hung Chan<sup>2</sup>, James J. McDevitt<sup>3</sup>, Benien J. P. Hau<sup>1,4</sup>, Hui-Ling Yen<sup>1</sup>, Yuguo Li<sup>5</sup>, Dennis K. M. Ip<sup>1</sup>, J. S. Malik Peiris<sup>1</sup>, Wing-Hong Seto<sup>1,6</sup>, Gabriel M. Leung<sup>1</sup>, Donald K. Milton<sup>7,8</sup> and Benjamin J. Cowling<sup>1,8</sup>✉

aerzteblatt.de

/ Ärzteblatt / cme / Arztstellen / Studieren / English Edition

## COVID-19-Patienten husten Viren durch chirurgische Masken und Baumwollmasken hindurch

Dienstag, 7. April 2020



/candy1812, stock.adobe.com

Seoul – Weder Baumwollmasken noch chirurgische Masken sind eine sichere Barriere für SARS-CoV-2, wenn ein Patient mit COVID-19 hustet. Dies zeigen aktuelle Experimente in den *Annals of Internal Medicine* (2020; doi: [10.7326/M20-1342](https://doi.org/10.7326/M20-1342)).

LETTERS | 6 APRIL 2020

## Effectiveness of Surgical and Cotton Masks in Blocking SARS-CoV-2: A Controlled Comparison in 4 Patients FREE

Seongman Bae, MD \*; Min-Chul Kim, MD \*; Ji Yeun Kim, PhD \*; Hye-Hee Cha, BS; Joon Seo Lim, PhD; Jiwon Jung, MD; Min-Jae Kim, MD; Dong Kyu Oh, MD; Mi-Kyung Lee, MD; Seong-Ho Choi, MD; Minki Sung, PhD; Sang-Bum Hong, MD; Jin-Won Chung, MD; Sung-Han Kim, MD

**Published:** *Ann Intern Med.* 2020.

**DOI:** 10.7326/M20-1342

Published at *www.annals.org* on 6 April 2020

© 2020 American College of Physicians

# Masken tragen ist auch wirklich gut!

Science

PERSPECTIVES

Cite as: K. A. Prather *et al.*, *Science*  
10.1126/science.abc6197 (2020).

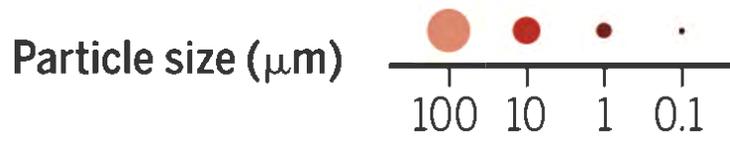
## Reducing transmission of SARS-CoV-2

27.5.2020

**Kimberly A. Prather<sup>1</sup>, Chia C. Wang,<sup>2,3</sup> Robert T. Schooley<sup>4</sup>**

<sup>1</sup>Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA 92037, USA. <sup>2</sup>Department of Chemistry, National Sun Yat-sen University, Kaohsiung, Taiwan 804, Republic of China. <sup>3</sup>Aerosol Science Research Center, National Sun Yat-Sen University, Kaohsiung, Taiwan 804, Republic of China. <sup>4</sup>Department of Medicine, Division of Infectious Diseases and Global Public Health, School of Medicine, University of California San Diego, La Jolla, CA 92093, USA. Email: kprather@ucsd.edu

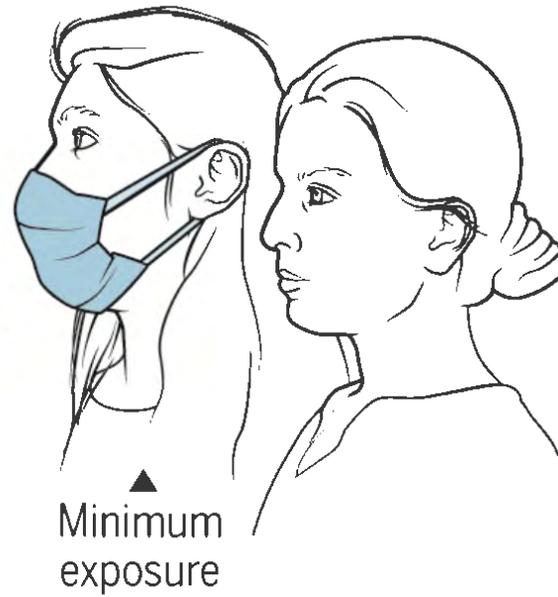
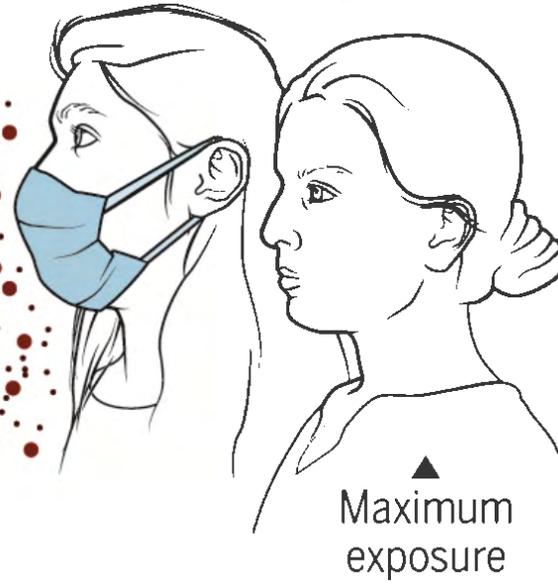
**Masks and testing are necessary to combat asymptomatic spread in aerosols and droplets**



**Infected, asymptomatic**



**Healthy**

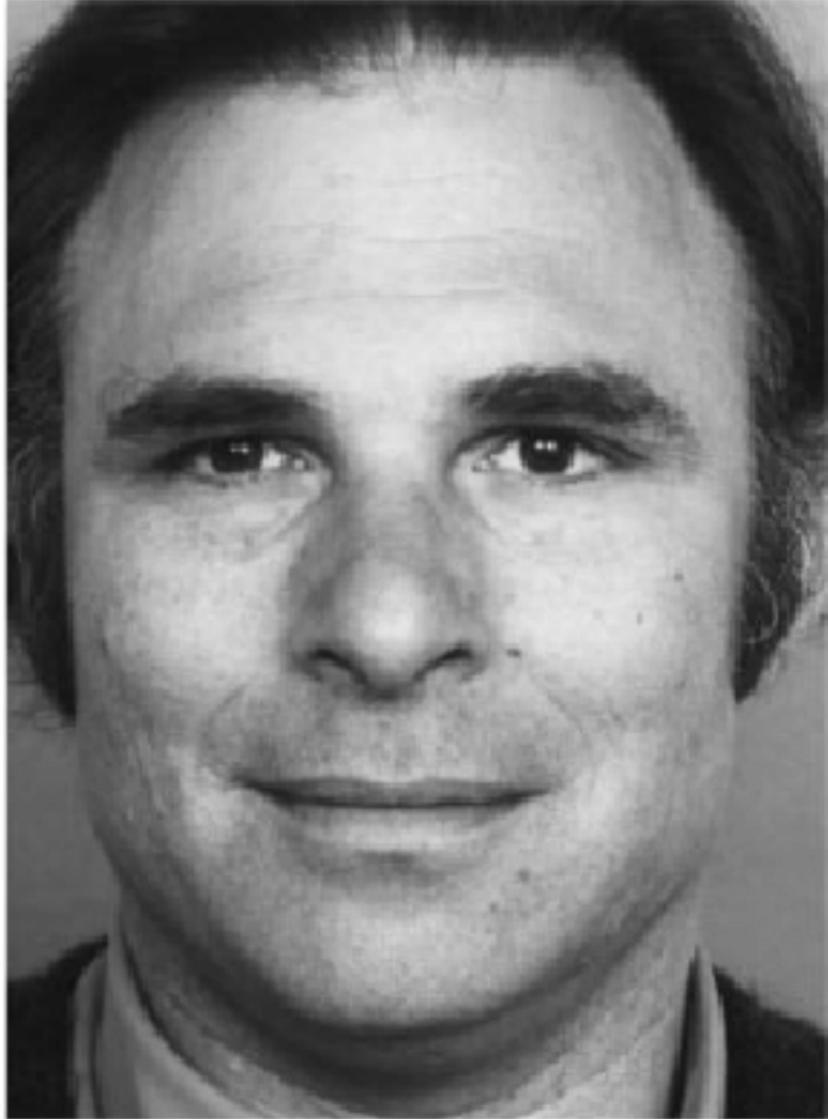
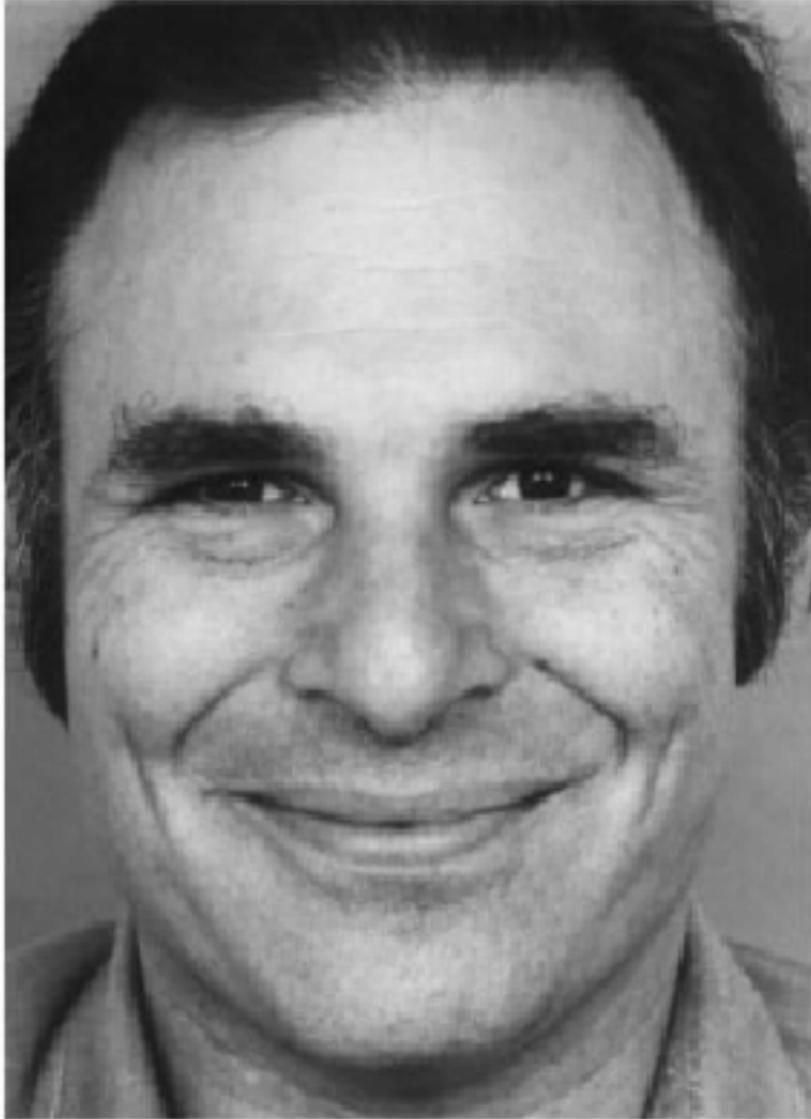


# Problem





# Und noch ein Problem



# Perceptions of Duchenne and non-Duchenne smiles: A meta-analysis

Sarah D. Gunnery<sup>1</sup> and Mollie A. Ruben<sup>2</sup>

<sup>1</sup>Department of Occupational Therapy, Tufts University, Medford, MA, USA

<sup>2</sup>Center for Healthcare Organization and Implementation Research, United States Department of Veterans Affairs, Boston, MA, USA

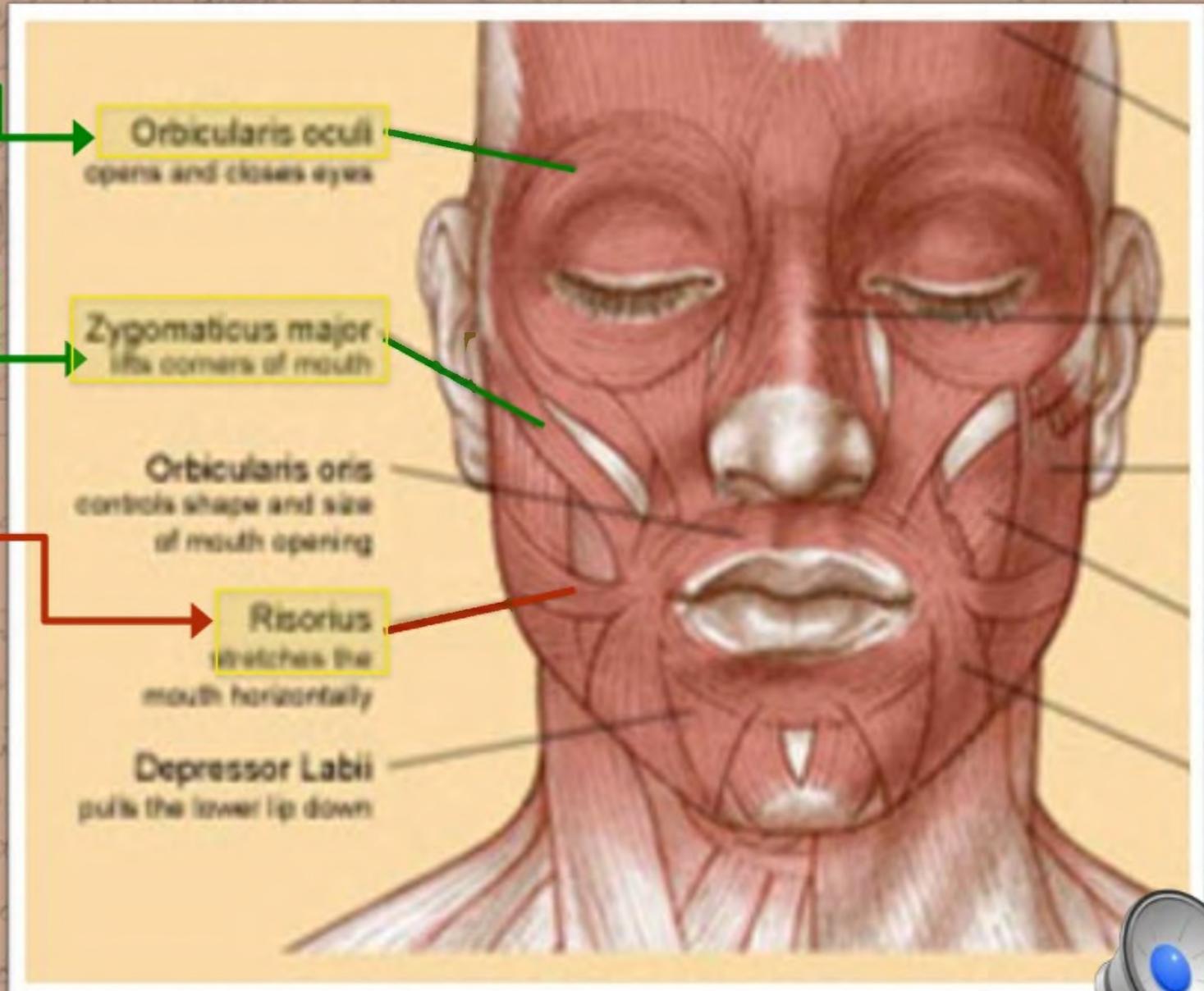
*(Received 10 October 2014; accepted 8 February 2015)*

A meta-analysis was conducted to compare perceptions of Duchenne smiles, smiles that include activation of the cheek raiser muscle that creates crow's feet around the eyes, with perceptions of non-Duchenne smiles, smiles without cheek raiser activation. In addition to testing the overall effect, moderator analyses were conducted to test how methodological, stimulus-specific and perceiver-specific differences between studies predicted the overall effect size. The meta-analysis found that, overall, Duchenne smiles and people producing Duchenne smiles are rated more positively (i.e., authentic, genuine, real, attractive, trustworthy) than non-Duchenne smiles and people producing non-Duchenne smiles. The difference between Duchenne and non-Duchenne smiles was greater when the stimuli were videos rather than photographs, when smiles were elicited naturally rather than through posing paradigms and when Duchenne and non-Duchenne smiles were not matched for intensity of the lip corner puller in addition to other perceiver and methodological moderators.

# Muscles used to smile

Duchenne smile

Non-Duchenne smile





**Action unit 5**  
(Cheek raiser)

**Action unit 12**  
(Lip corner puller)

**Action unit 12 only**

**Duchenne Smile**

- Man kommuniziert weniger positive Emotionen

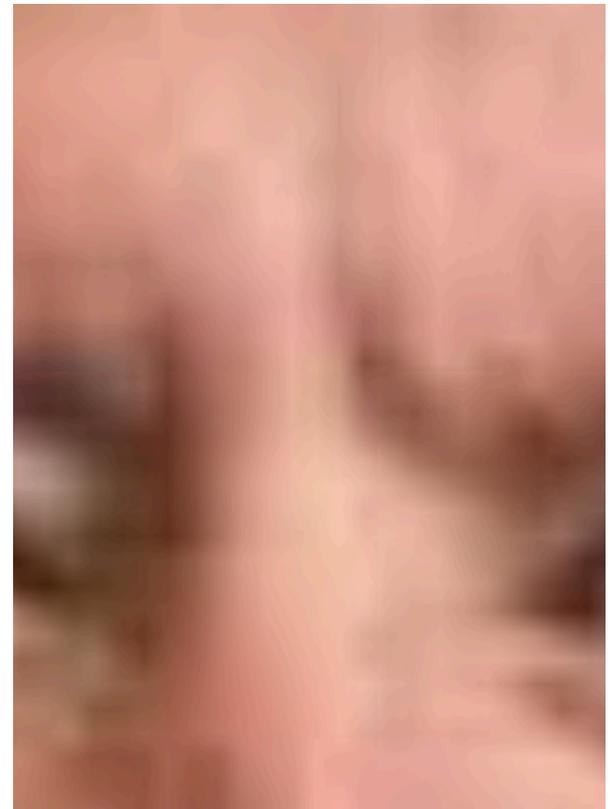


# Problem

- Man kommuniziert weniger positive Emotionen

# Problem

- Man kommuniziert weniger positive Emotionen
- Deckt man den Mund ab,
- bleibt das Stirnrunzeln übrig
- Man kommuniziert also
- die falsche Emotion



# Lösung

- Am Arbeitsplatz, in der Schule, überall
- Man muss sich dies bewusst machen und VERBAL gegensteuern

# Digitale Medien

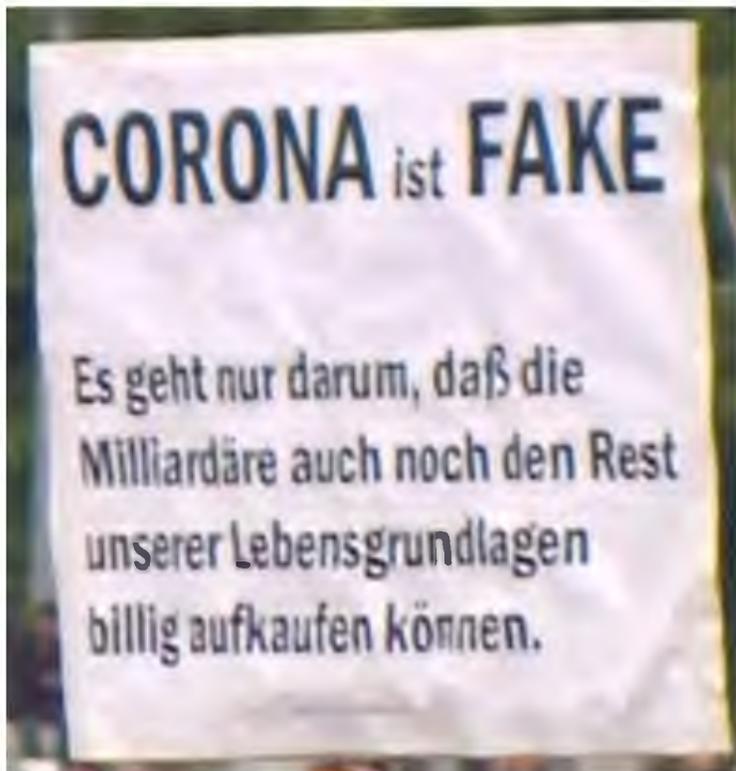
- Wirkungen  
Kommunikation

# Digitale Medien

- Wirkungen  
Kommunikation
- Nebenwirkungen  
Infodemic

# Infodemic

- WHO (29. Februar 2020)
- Fake News
- Verschwörungstheorien



Die Pandemie gibt es wirklich

# EUROMOMO

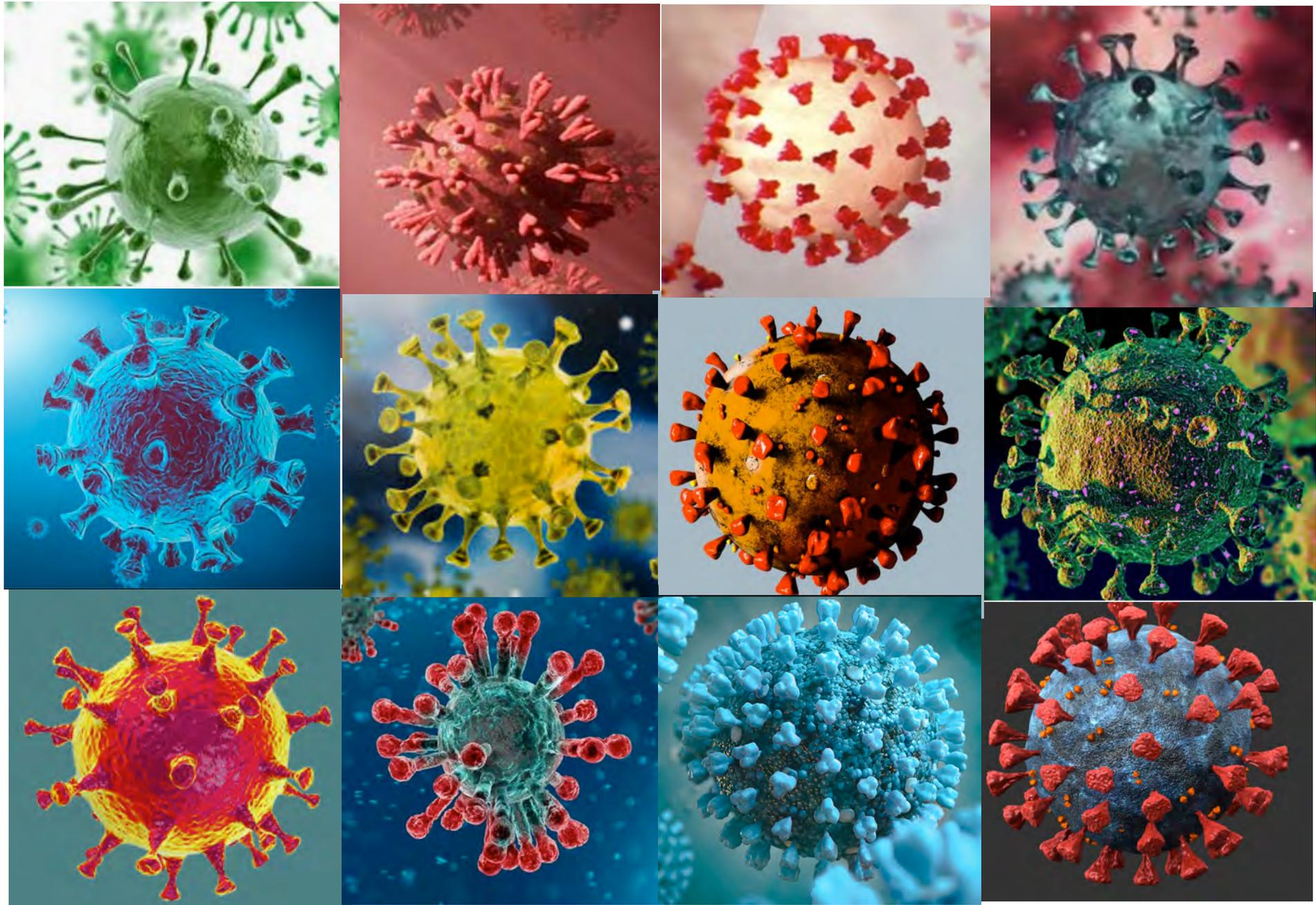
Graphs and maps

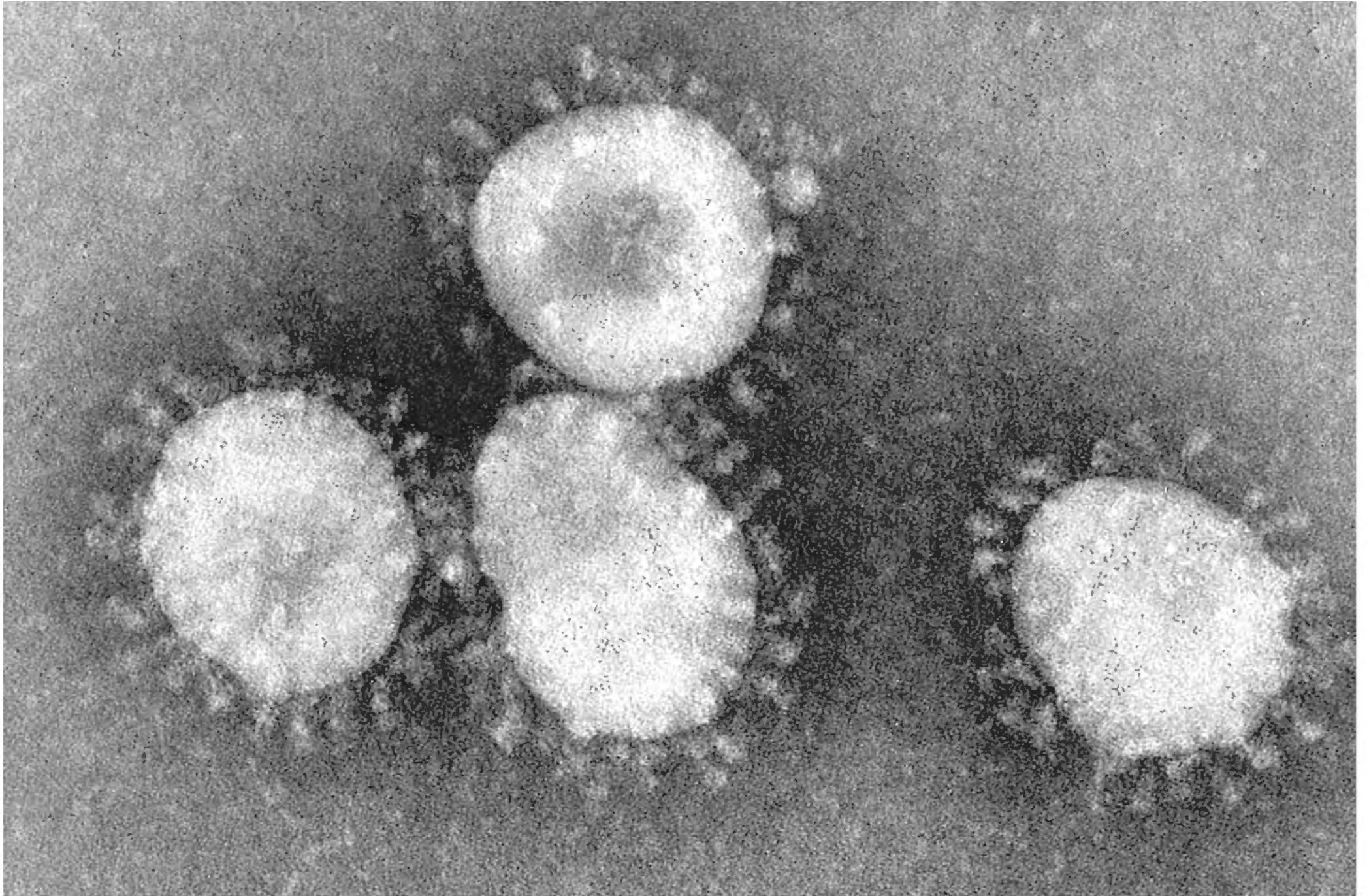


# Infodemic

- Das Problem: Auch in den „ganz normalen Nachrichten“ verwenden wir Bilder und Wörter, die es nicht gibt.

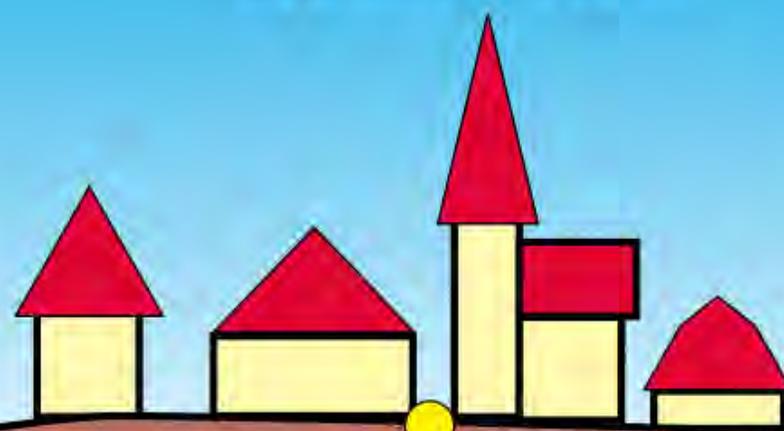
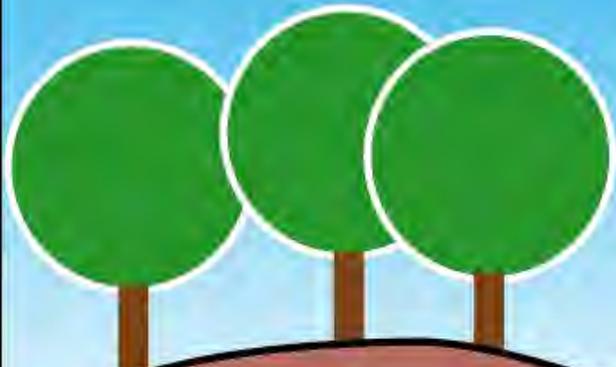
# Welches ist denn nun das richtige Coronavirus?





Eine Epidemie hat kein Epizentrum

Epizentrum



Hypozenrum





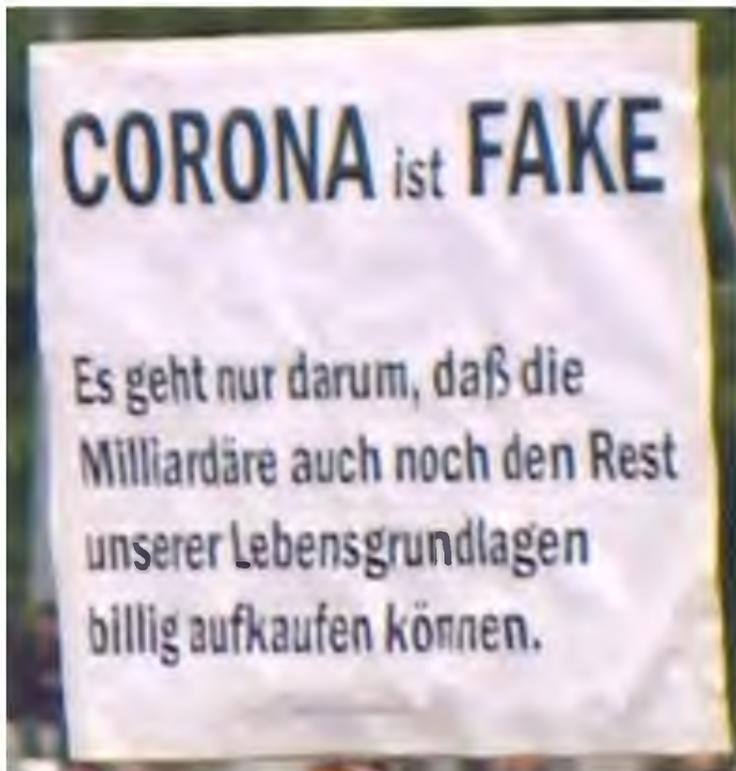
**FAKE NEWS  
IS THE  
REAL  
VIRUS!**



Don't MASK  
our FREEDOM!

Use the  
VACCINE of LIBERTY  
to fight the  
VIRUS of TYRANNY

Paul Lataugh





Damals  
**Hexen-  
Wahn**  
Heute  
**Corona-  
Wahn**

**SOCIAL SCIENCE**

# The spread of true and false news online

Soroush Vosoughi,<sup>1</sup> Deb Roy,<sup>1</sup> Sinan Aral<sup>2\*</sup>

We investigated the differential diffusion of all of the verified true and false news stories distributed on Twitter from 2006 to 2017. The data comprise ~126,000 stories tweeted by ~3 million people more than 4.5 million times. We classified news as true or false using

# The Effect of Repetition on Truth Judgments Across Development



Lisa K. Fazio  and Carrie L. Sherry

Department of Psychology and Human Development, Vanderbilt University

Psychological Science

1–11

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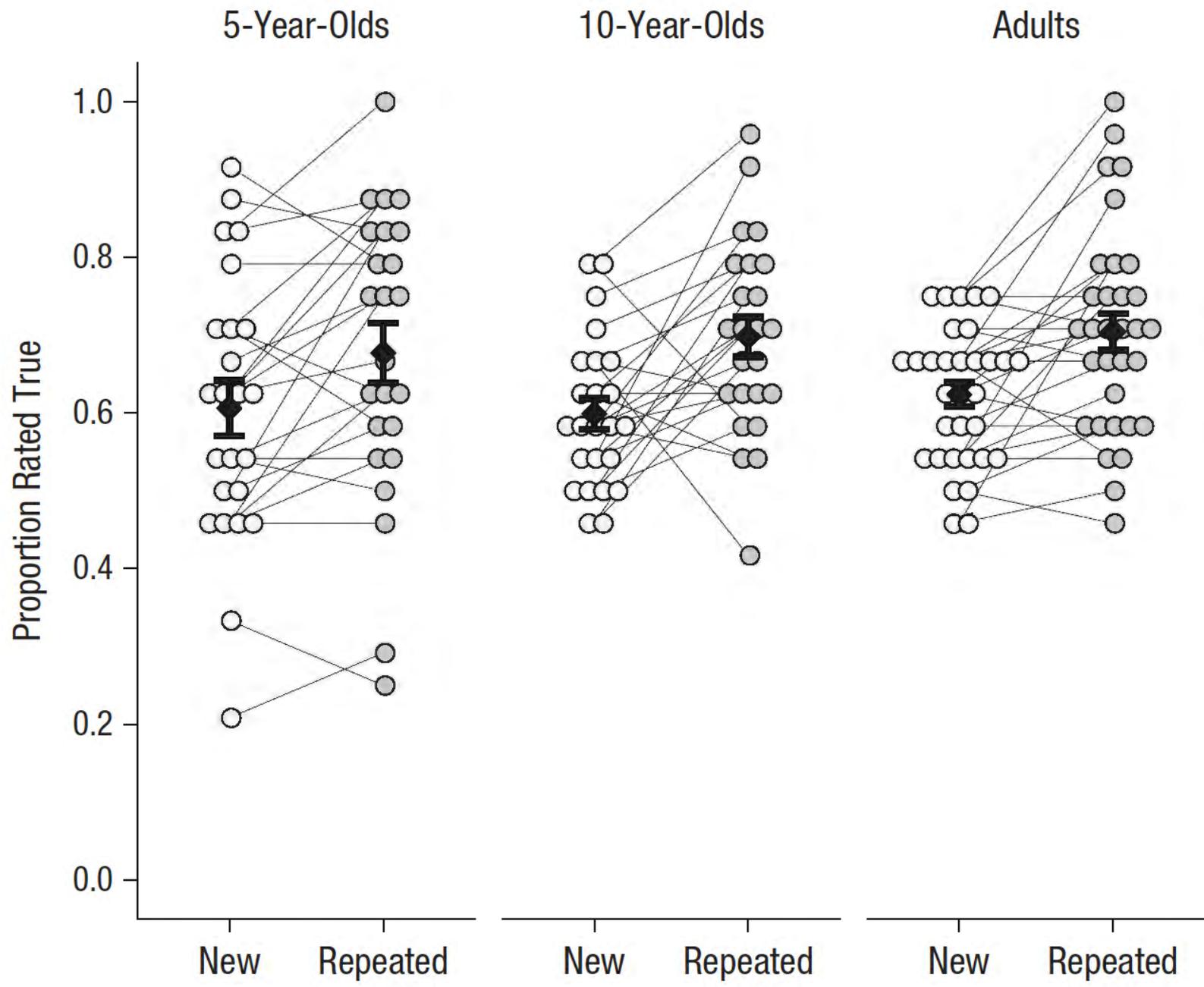
DOI: 10.1177/0956797620939534

[www.psychologicalscience.org/PS](https://www.psychologicalscience.org/PS)



## Abstract

According to numerous research studies, when adults hear a statement twice, they are more likely to think it is true compared with when they have heard it only once. Multiple theoretical explanations exist for this *illusory-truth effect*. However, none of the current theories fully explains how or why people begin to use repetition as a cue for truth. In this preregistered study, we investigated those developmental origins in twenty-four 5-year-olds, twenty-four 10-year-olds, and 32 adults. If the link between repetition and truth is learned implicitly, then even 5-year-olds should show the effect. Alternatively, realizing this connection may require metacognition and intentional reflection, skills acquired later in development. Repetition increased truth judgments for all three age groups, and prior knowledge did not protect participants from the effects of repetition. These results suggest that the illusory-truth effect is a universal effect learned at a young age.

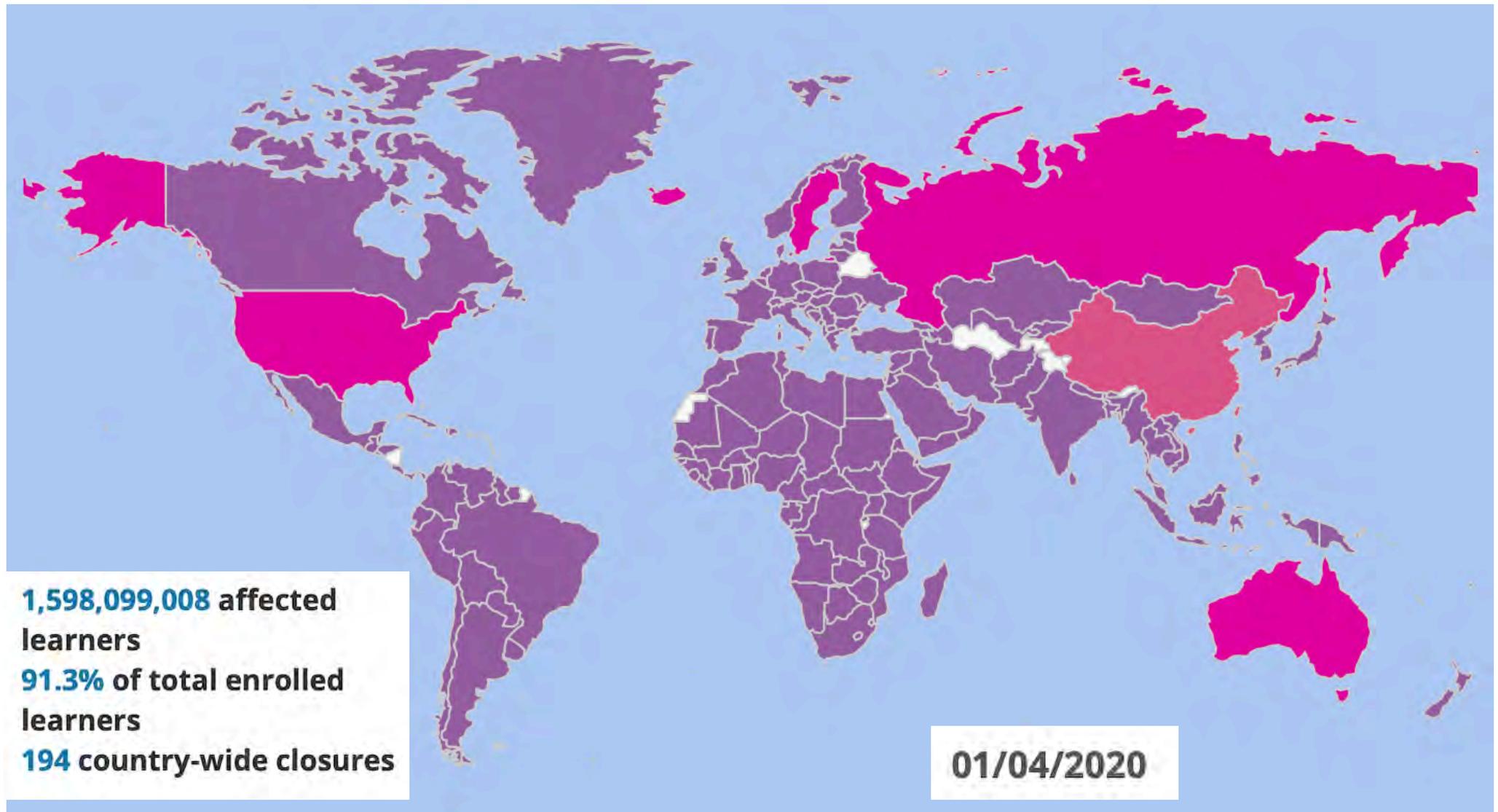


**Fig. 3.** Proportion of new and repeated statements rated as true by each age group. Each dot represents one participant. The filled diamond represents the group mean, and error bars represent standard errors.

# Kinder

- Sind von Corona am wenigsten betroffen.
- Waren vom Lockdown am meisten betroffen.
- Müssen am Ende alles bezahlen.

## Schulschließungen: 1,6 Milliarden Schüler



# Learning inequality during the COVID-19 pandemic

Per Engzell<sup>\*a,b,c</sup>, Arun Frey<sup>d</sup>, and Mark Verhagen<sup>a,b</sup>

<sup>a</sup>Leverhulme Centre for Demographic Science, 42 Park End St, Oxford OX1 1JD, UK

<sup>b</sup>Nuffield College, University of Oxford, 1 New Rd, Oxford OX1 1NF, UK

<sup>c</sup>Swedish Institute for Social Research, Stockholm University, 106 91 Stockholm, Sweden

<sup>d</sup>Department of Sociology, University of Oxford, 42 Park End St, Oxford OX1 1JD, UK

October 2020

Suspension of face-to-face instruction in schools during the COVID-19 pandemic has led to concerns about consequences for student learning. So far, data to study this question have been limited. Here we evaluate the effect of school closures on primary school performance using exceptionally rich data from the Netherlands ( $n \approx 350,000$ ). The Netherlands represents a best-case scenario with a relatively short lockdown (8 weeks) and high degree of technological preparedness. We use the fact that national exams took place before and after lockdown, and compare progress during this period to the same period in the three previous years using a difference-in-differences design. Our results reveal

Taken together, our estimates suggest that existing projections of learning loss are, if anything, too conservative. This is alarming in light of the much larger losses projected in countries less prepared for the pandemic. At the same time, our results may underestimate costs even in the context that we study. Schools remained at reduced capacity following re-openings.

*Ludger Wößmann*

# Folgekosten ausbleibenden Lernens: Was wir über die Corona-bedingten Schulschließungen aus der Forschung lernen können

Ifo Institut 10.6.2020

Geht etwa ein Drittel eines Schuljahres an Lernen verloren, so geht dies über das gesamte Berufsleben gerechnet im Durchschnitt mit rund 3–4% geringerem Erwerbseinkommen einher.

# Fazit

Das Virus ist das eine, was wir daraus machen, ist das andere

Man sieht das kaum besser als im Ländervergleich

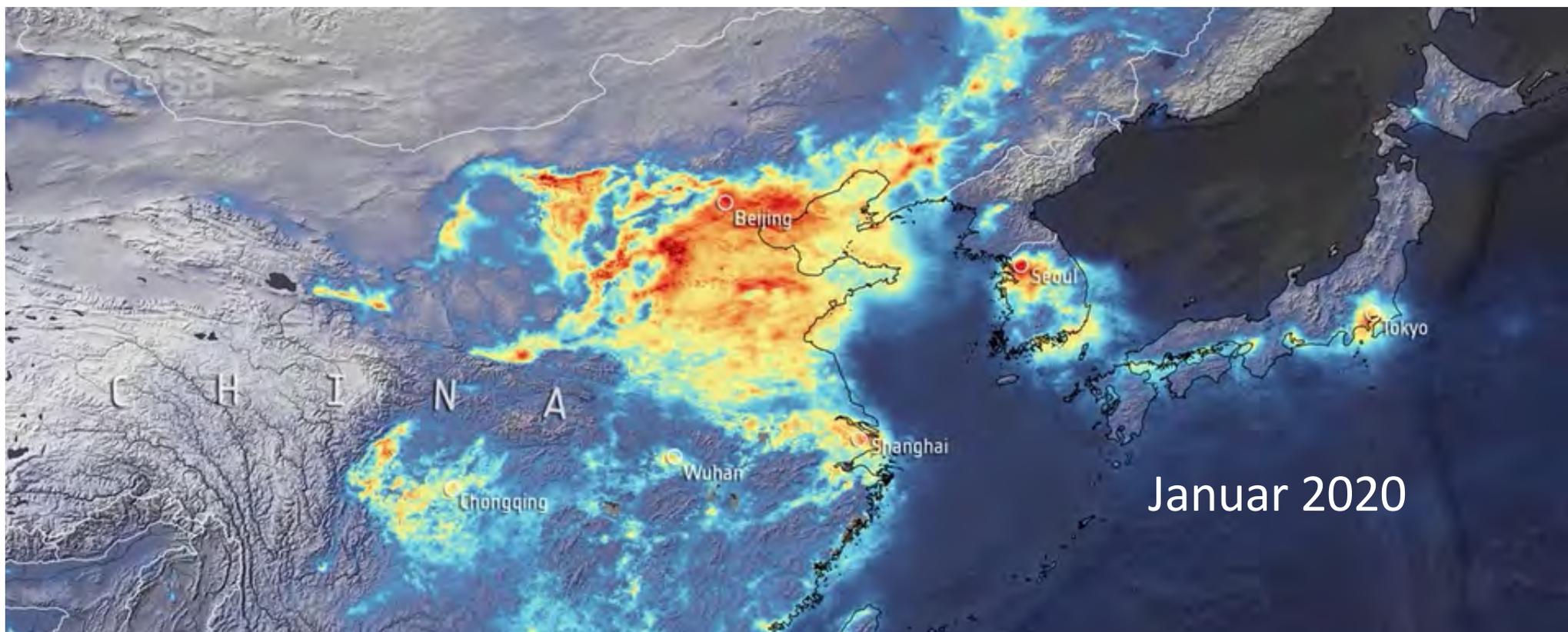
Wenn es ein Land gibt, in dem man während der Krise gerne gewesen wäre bzw. war, dann ist dies Deutschland

# Fazit II

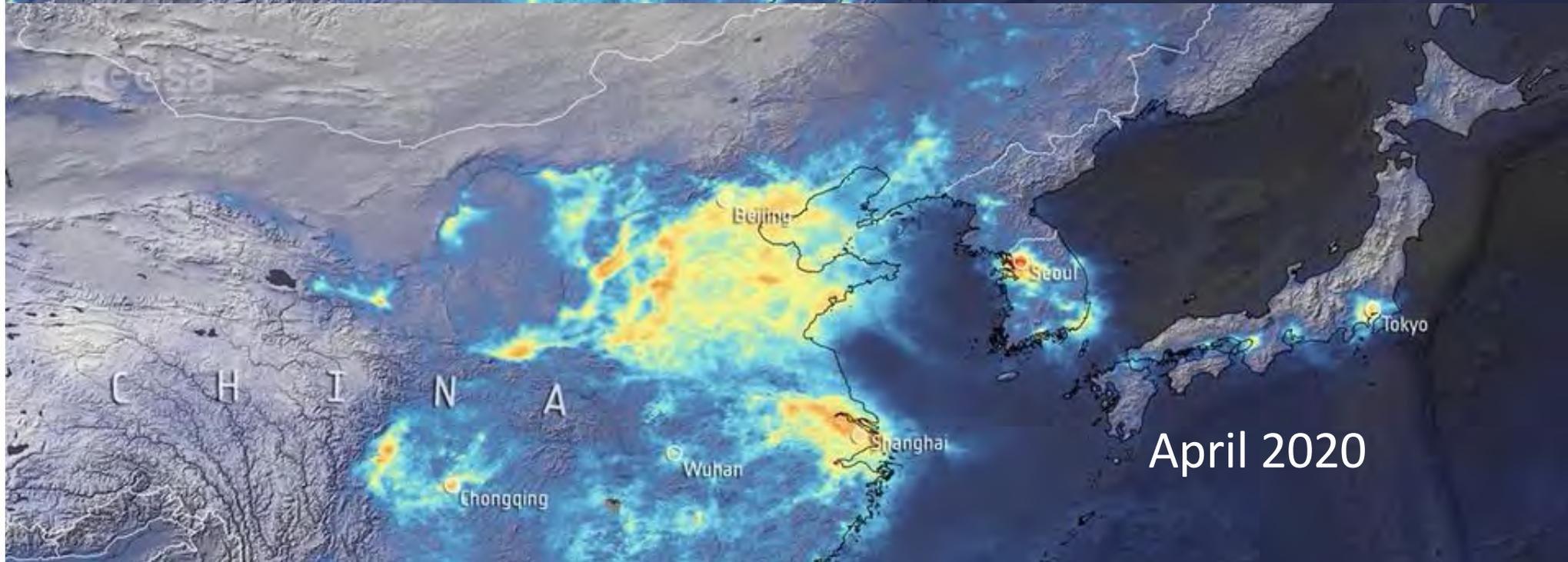
- Die Krise bringt das Beste und das Schlechteste aus den Menschen heraus
- Es hängt an uns, was drinnen ist.
- Wir sterben nicht an Corona, sondern an uns selbst

# Kurz vor Schluss: Die andere Krise

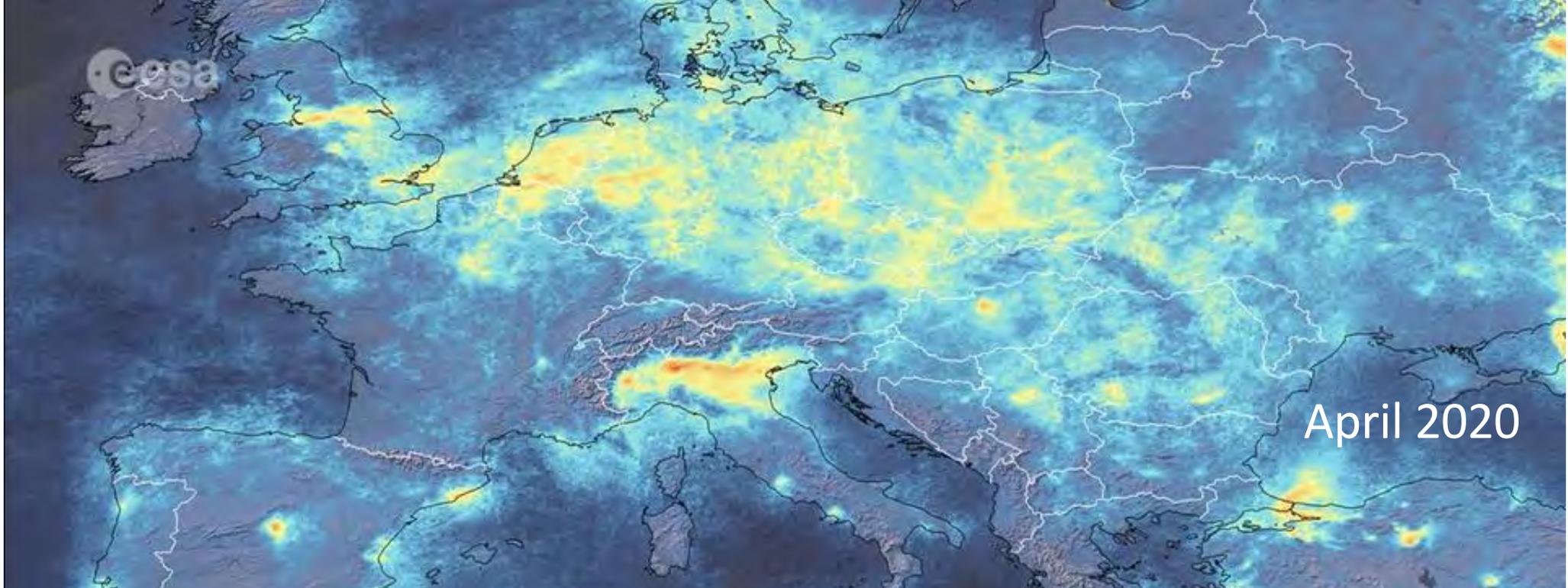
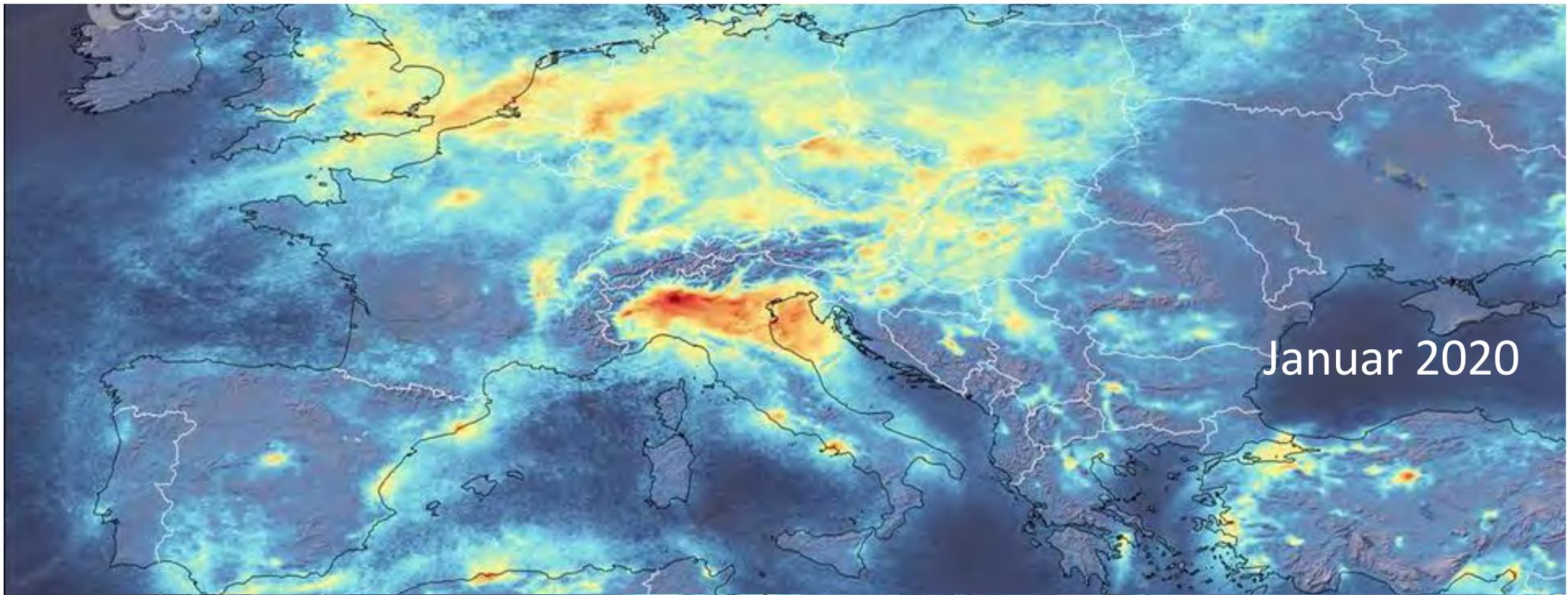
- Die Menschen sterben an Lungenversagen
- Der Planet atmet durch



Januar 2020



April 2020



Fazit:

Die Welt nach Corona wird nicht die  
Gleiche sein wie zuvor

# Die Welt nach Corona wird nicht die Gleiche sein wie zuvor

- Besser oder Schlechter?

# Die Welt nach Corona wird nicht die Gleiche sein wie zuvor

- Besser oder Schlechter?
- Das hängt nicht vom Virus, sondern von uns ab
- Von jedem Einzelnen!

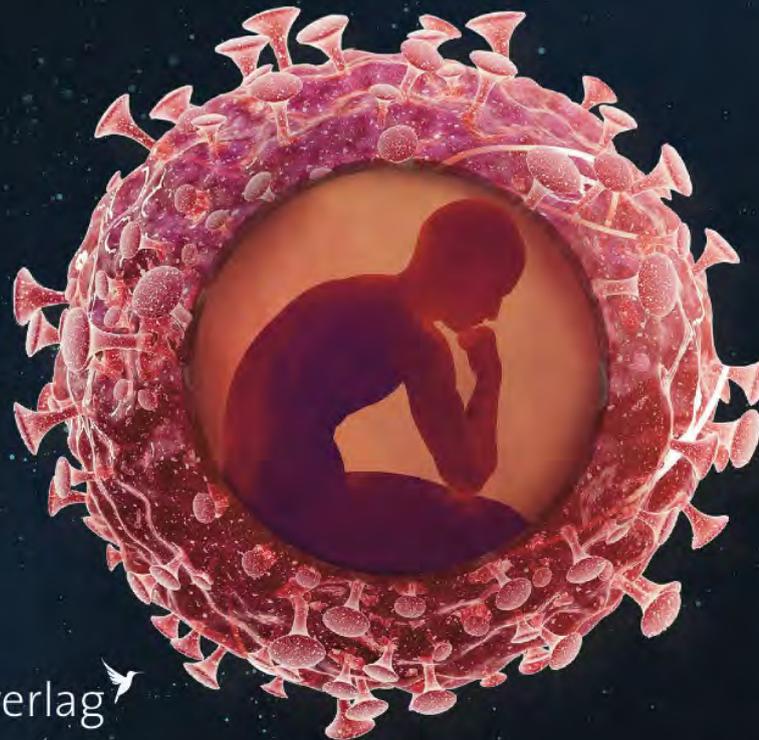
# Die Welt nach Corona wird nicht die Gleiche sein wie zuvor

- Besser oder Schlechter?
- Das hängt nicht vom Virus, sondern von uns ab
- Von jedem Einzelnen!
- **BLEIBEN SIE GESUND!**

MANFRED SPITZER

# PANDEMIE

Was die Krise mit  
uns macht und was  
wir aus ihr machen



mvgverlag 