



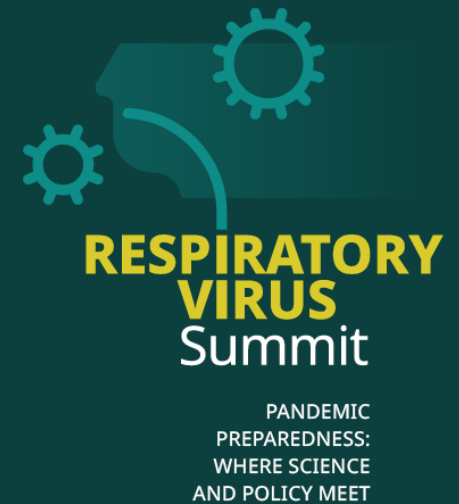
RESPIRATORY VIRUS Summit

organised by **ESWI**

PANDEMIC
PREPAREDNESS:
WHERE SCIENCE
AND POLICY MEET

Translating Science to policymakers and the public at large

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Translating science to politicymakers and the public at large

Christian Drosten
Charité Medical Centre
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Virology

- Core field
 - Clinical virology, e.g., virus and antibody testing
 - Viral replication, phenotype and evolution
- Synergies/overlaps
 - Vaccinology
 - Antiviral drug research/biochemistry
 - Hospital infection control
 - Epidemiology

Biochemistry

Immunology

Evolution and Ecology

Virology

Public health

Pharmacology

Hygiene / Hospital Inf Control

Infectious diseases

Politics



Biochemistry

Immunology

Evolution and Ecology



Virology

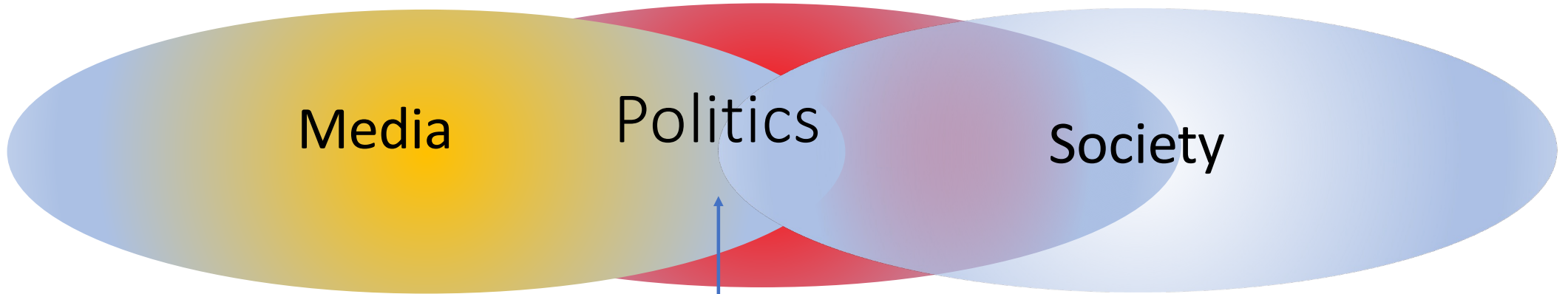


Public health

Pharmacology

Hygiene / Hospital Inf Control

Infectious diseases



Biochemistry

Immunology

Evolution and Ecology



Virology



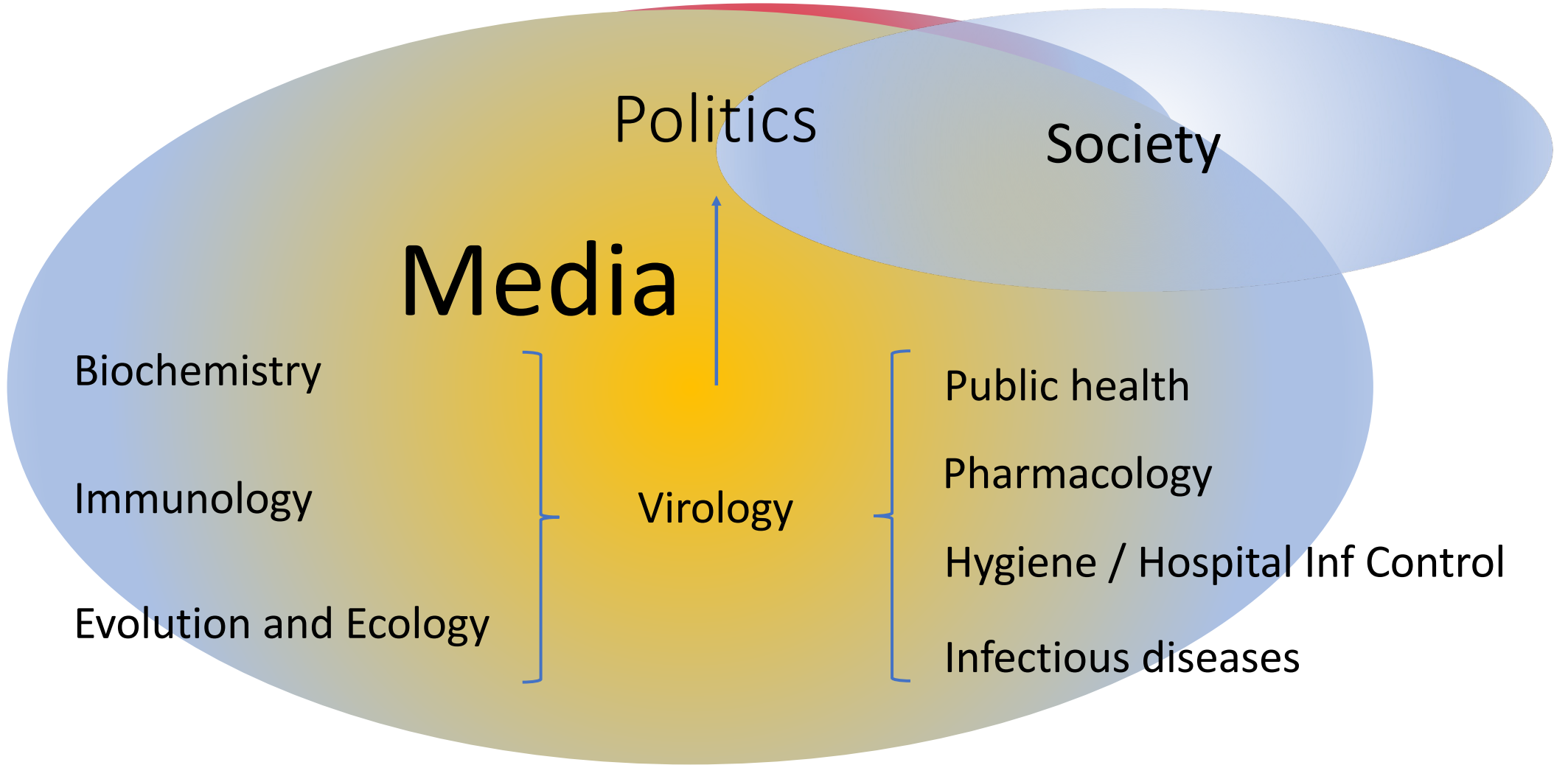
Public health

Pharmacology

Hygiene / Hospital Inf Control

Infectious diseases





Politics

Society

Media

Biochemistry

Immunology

Evolution and Ecology

Virology

Public health

Pharmacology

Hygiene / Hospital Inf Control

Infectious diseases

Responsibility toward

- Science
 - Opportunity vs opportunism
 - Enabling of research and facilitating access to research resources for other disciplines
 - Prioritizing on translation and immediate outcome vs. long-term success and sustainability, avoid overpromising
 - Maximize assistance and service to society during a crisis (paying back years of taxpayers' research support)

Responsibility toward

- Politics
 - Authenticity of expertise: Don't mix advice and opinion. Leave politics to politicians.
 - Consider and communicate limits of knowledge
 - Consider and communicate conflicts of interests
 - Keep accountability = document advice given, delimit responsibilities
- Media
 - Support freedom of information, avoid manipulation of reporting
- Society
 - Accountability toward the tax payer
 - Information as part of non-pharmaceutical intervention

Comprehensive and detailed messaging via podcast



142 million accesses

Ca. 75% of accesses through 3rd quartile of duration of episodes

Decision to keep in German, no translation, because of expectable thematic local focusing and messaging issues

Players

- Research community – individuals
- Other individuals
- Professional societies – science
- Professional societies – medical
- Science journalism

The pandemic in phases of public perception

- Calm before the storm
- First wave
- Recovery
- Return
- Alpha / (Delta)
- Recovery
- Delta
- Omicron
- Present

Calm before the storm

- A pandemic is inevitable
- Healthcare system must prepare now
- Don't panic
- China has it under control
- Wash hands frequently
- Droplet transmission

First wave

- Mild infection for most, everyone can get it, severe cases in elderly but also others, exponential growth
- Flatten the curve
 - until summer
 - until vaccination
- It's like the flu
- Immunize population by infection

Recovery

- Prepare for the winter wave
- There will be no winter wave
- Waves are normal, these viruses go up and down all of the time
- Learn to live with the virus
- (because vaccines may never become available)
- No lockdown measures, never again

Return

- Keep incidence low
- Keeping incidence low requires less effort than bringing it down
- What counts is the sum of contact reductions
 - Education
 - Workplaces
 - Leisure
 - Businesses
 - Care
- As expected we get a winter wave, but this is normal
- Policies have failed to protect the elderly
- Lockdowns have limited effects on incidence
- Incidence is misleading figure as most people don't get sick
- PCR detects only RNA, not disease, not even virus

Alpha/Vaccination upramp

- The virus can change, changes in gross picture are unlikely
- Get vaccinated as soon as you are eligible
- Viruses generally adapt to become harmless
- Older people are vaccinated, so
- End all contact measures and let the virus immunize all others
- All lockdown measures were wrong

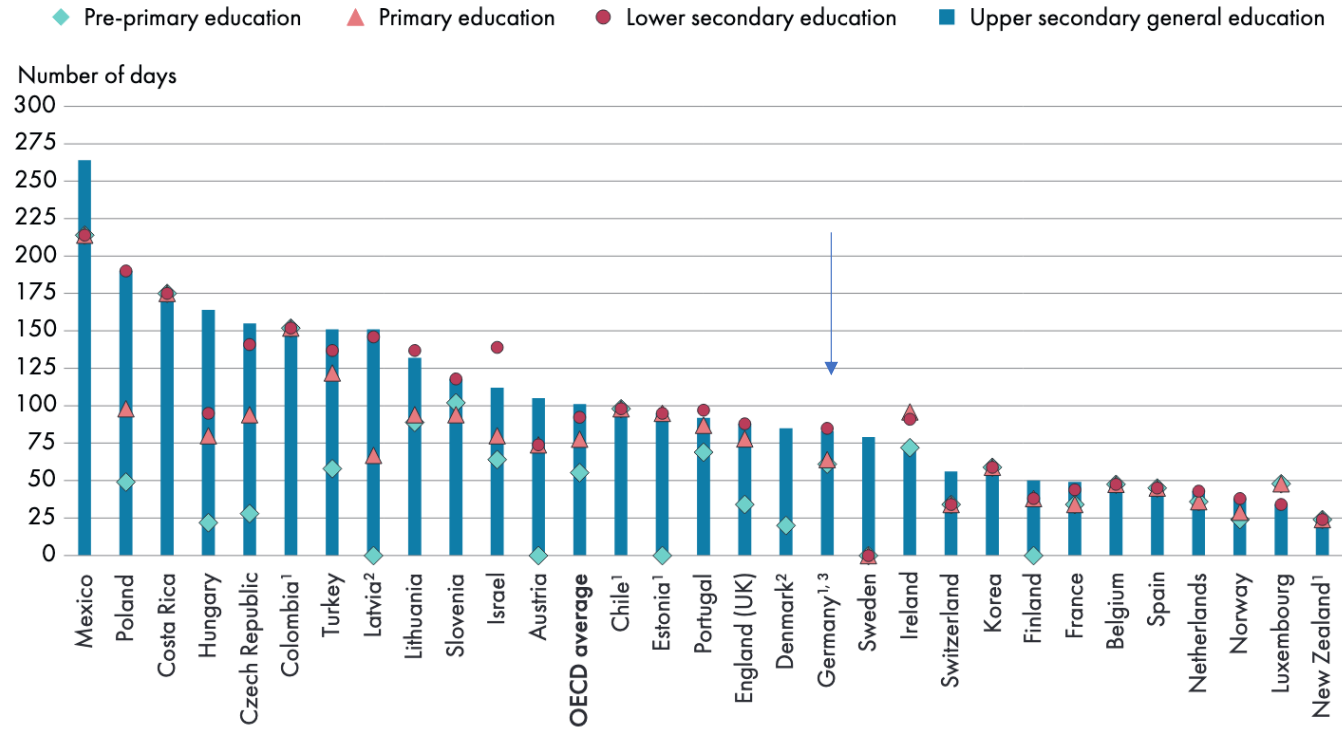
Recovery

- Winter wave is coming
- Do everything do fill the vaccination gap
- Vaccination is a personal choice
- Don't stigmatize non-vaccinated people
- There has never been a problem in ICUs
- Most people die with, not because of SCV2 infection
- There is no proof for lockdown measures
- The virus was never transmitted in schools

Delta

- Do everything to close the vaccination gap
- Provide third vaccination dose to everyone
- Consider contact measures in all areas based on incidence
- Act out of an abundance of caution when it comes to keeping schools open in spite of high incidence, test and mask
- Vaccination is a personal choice
- All lockdown measures were wrong
- Incidence does not equal diseases
- We always said virus is transmitted in schools, but children don't get sick
- Germany had one of the longest school closure times throughout the pandemic

Figure 2 • Number of instruction days schools were fully closed in 2020 and 2021, by level of education
 Excluding school holidays, public holidays and weekends, between 1 January 2020 and 20 May 2021



1. Most typical number of instruction days. For Colombia, some schools were fully closed during the period from September to December 2020 while others were partially open in hybrid mode for 65 days.
2. Minimum number of instruction days in 2020.
3. Different school holiday schedules explain the higher number of instruction days when schools were fully closed at pre-primary compared to primary education.

Countries and economies are ranked in descending order of the number of days schools were fully closed in upper secondary education between 1 January 2020 and 20 May 2021.

Source: OECD/UIS/UNESCO/UNICEF/WB (2021_[1]).

Omicron

- Lowered fatality in South Africa
- South Africa has another immunization pattern
- Virus attenuation can revert
- Stop all measures immediately
- All lockdown measures were wrong because lack of evidence
- Virus is not transmitted in schools provided masks and testing
- Stop masks and testing in schools immediately

Present

- Summer wave – maybe dampened by upcoming school vacations
- Loss of transmission immunity, BA.5 with even enhanced escape
- Vaccine-based disease immunity allows higher incidence
- Higher incidence will cause massive workplace absences through autumn and winter
- Original antigenic sin jeopardizes vaccination – careful with boosters
- Drop all masks – they stop the population from entering into endemic state
- Let people get infected on purpose to prepare for winter
- And by the way, Monkeypox will go away like magic.

Continuing challenges

- Growing attacks from para-science and some few media sources
- Loss of credibility with not-so-well informed parts of politics
- Loss of voice due to re-focussing of public attention to war in Europe
- Loss of courage, optimism, funding, support
- Growing immunization rate confirming original mis-assessments
- Restrospective strawman narratives: schools, lockdowns, etc.

- Population-level infection control can only work with well-informed citizens
- Public information is one of the prime interventions, especially during the early phase of a pandemic
- Quality control in scientific communities must urgently be extended to include science communication
- Journalism must urgently re-consider its responsibilities in controlling the quality of public messaging