

COVID19-induced changes in veterinary training [in Germany]

Challenges, hurdles, chances and vision

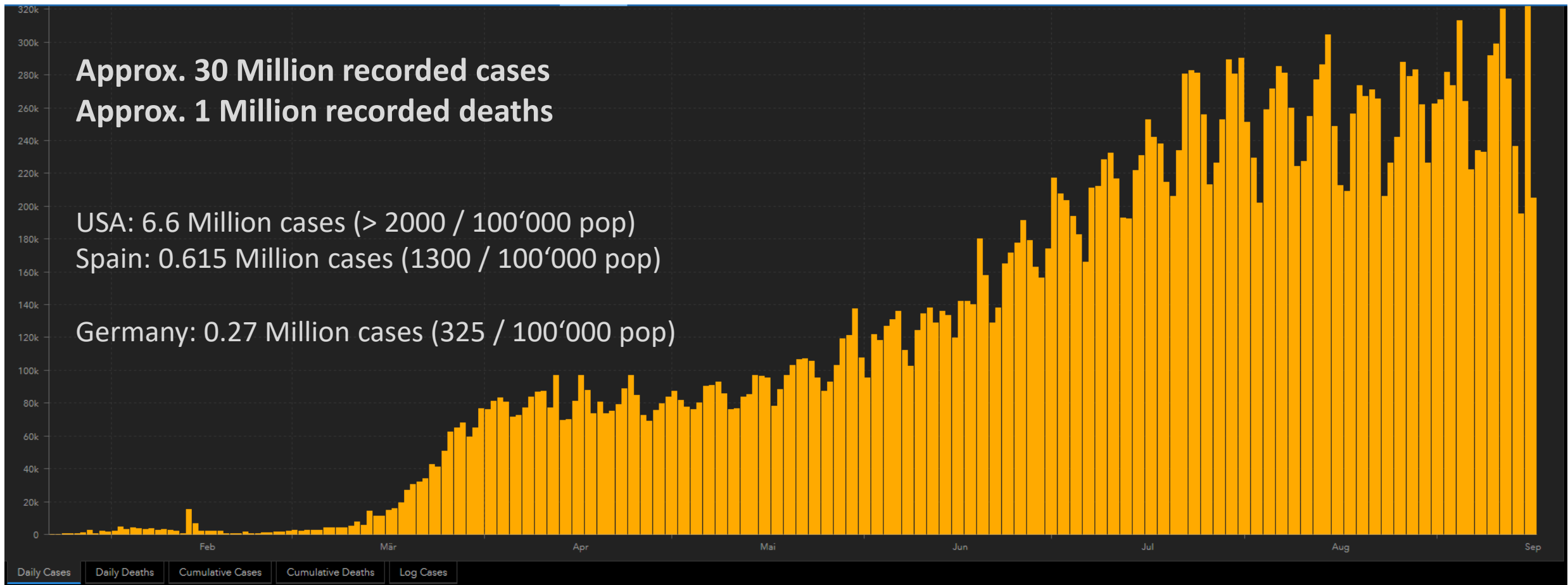
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Content

- COVID19 epidemic curve in World and in Germany
- COVID19 and One Health
- Timing of measures in Germany and Freie Universität (FU)
- Challenges of implementing measures in (veterinary) education
- Sustainability and vision

COVID19 human epidemic 2020 (World)



Source: John-Hopkins University COVID19 website <https://coronavirus.jhu.edu/map.html> (accessed 17.09.2020)

One Health

- One Health is a collaborative, multisectoral, and trans-disciplinary approach - working at local, regional, national, and global levels - to achieve optimal health and well-being outcomes recognizing the interconnections between people, animals, plants and their shared environment.

[https://www.onehealthcommission.org/en/why_one_health/what_is_one_health/]

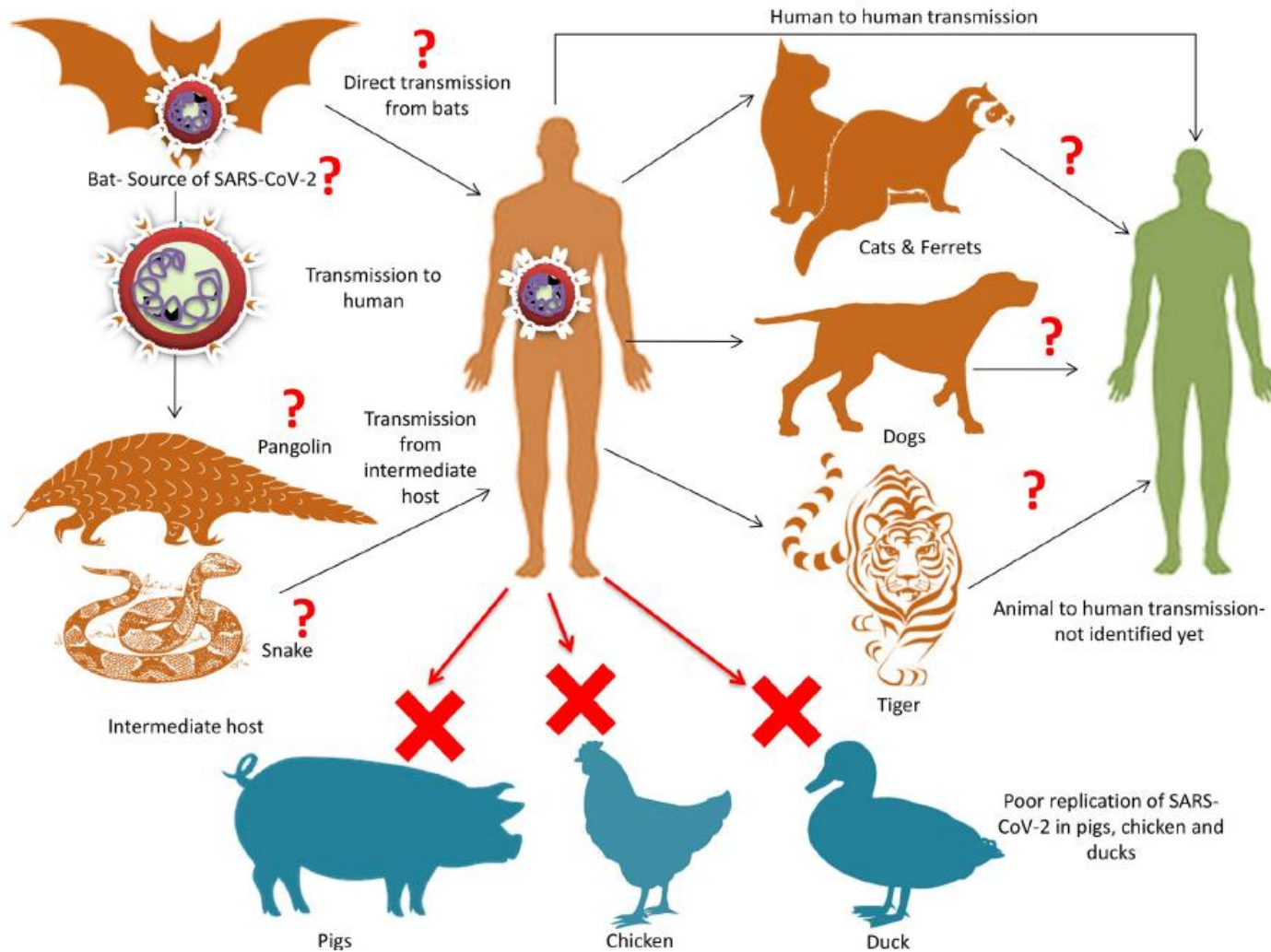


Figure 1. Zoonotic links of SARS-CoV-2. Bat has been reported as the reservoir source of SARS-CoV-2. The intermediate host is not yet elucidated clearly and presently snake and/or pangolins are reported to the intermediate host. Reports regarding the transmission of SARS-CoV-2 from human to animal have been speculated. Study also shows that SARS-CoV-2 replicate poorly in pig, chicken and duck while ferrets and cats are susceptible.

Other One Health aspects such as

Disruption of food (production) chains

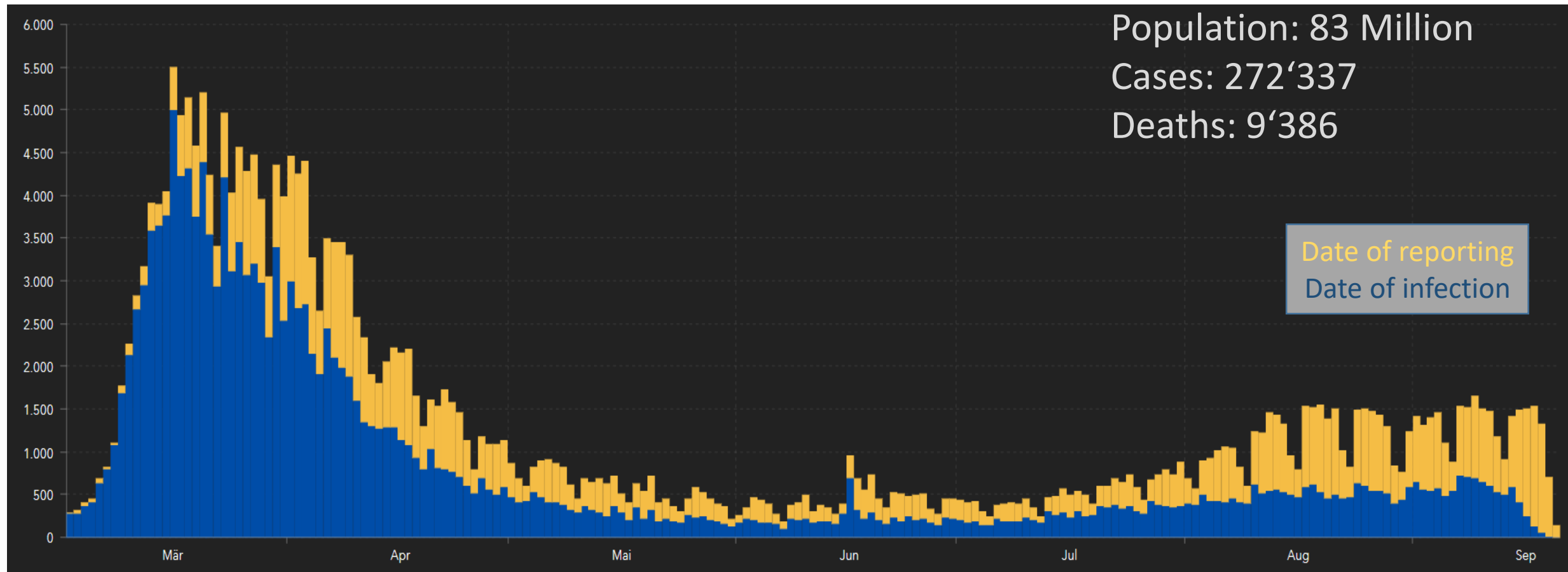
Increased food (of animal origin) production costs

Challenges in providing veterinary services to various animal species

Pets as social partners in times of human-human contact restrictions

Early detection, response and prevention of future zoonotic disease pandemics

COVID19 epidemic curve 2020 (Germany)



Source: RKI dashboard; <https://experience.arcgis.com/experience/478220a4c454480e823b17327b2bf1d4>; accessed 21.09.2020)

Brief chronology of relevant measures (1)

- Jan. 27: first documented case
- March 2: cases in various German States
- March 4: first cancellation of large (international) fairs
- March 14: closure of schools and kindergartens, national lockdown
- March 11: First FU measures
 - Ban of all conferences and public meetings
 - Ban of all work-related travel
- March 13: FU establishes several task forces / working groups
 - Digital teaching & exam formats
- March 19: FU ban of all physical exam formats
 - Exception: VETMED – regulated by Federal legislation

Brief chronology of relevant measures (2)

- March 20: FU goes into almost complete home office
 - Exception: emergency services including veterinary clinics / labs
 - Closure of cafeterias, canteens, libraries etc.
- March 24: FU announces a fully digital summer 2020 semester
 - Faculties are asked to provide a strategy for online teaching
- March 27: FU makes WebEx widely available
 - Single sign on with FU account
 - Additional training and resources (websites, WiKi, FAQ)
- April 20: delayed start of the digital summer semester
 - Daily over 4000 documented WebEx events with a total of more than 20'000 participants ...

Additional technical resources

- March 30: FU makes Webinar/Recording Tools *CAMTASIA* widely available
- April 15: *vbrick* (video streaming platform) tool is made available
 - FU single sign on, all members
- June 15: Options for digital exam formats are established
 - Alternatives to on-site formats
- July 19: E-examination center re-opens with 80 spaces
 - Less than half the capacity
 - Limited to on-site exams for State-regulated courses of study
- July 30: Contract with e-exam provider for exams@home module
 - Written exams on mobile devices and personal PCs

Main challenges in online teaching (1)

- Very wide range of experience in and acceptance of digital teaching formats by lecturers
 - Some lectures had never used anything except for small seminar (discussion) groups
 - Faculties / individuals did not have the technical equipment to (a) deliver or (b) participate in digital teaching sessions
- Most students (in retrospect and mainly from anecdotal evidence) accepted or even preferred the (flexibility of) self-directed learning
 - For some students it did not work (then in several subjects)

Main challenges in online teaching (2)

- Documentation of student attendance
 - What defines „active“ participation, how is it recorded
- Recorded lecture videos (on demand) vs. „live“ webinars
 - Engaging students during web-based lectures
- Assessing the in-class learning experience
- Controversial discussions such as
 - „how long should recorded lecture videos be accessible to students“
 - No recording, students have to attend live webinar
 - For 2 weeks after the scheduled lecture
 - At least until the end of the semester and/or date of the exam, or „forever“ ...

Main challenges in examinations (1)

- Changes of delivery format typically require adaptations in study regulations
 - Often a long administrative process, no time!
 - Need to be legally „safe“ (equality of chances between study cohorts)
- Digital formats need to be technically stable („no“ interruptions)
- Proof of identity of students and exam (progress) recording
 - Video formats, proctoring etc.
- Exam types that more easily transfer into online formats
 - Written „homework“ assignments, written essays
 - All open book written exam formats

Main challenges in examinations (2)

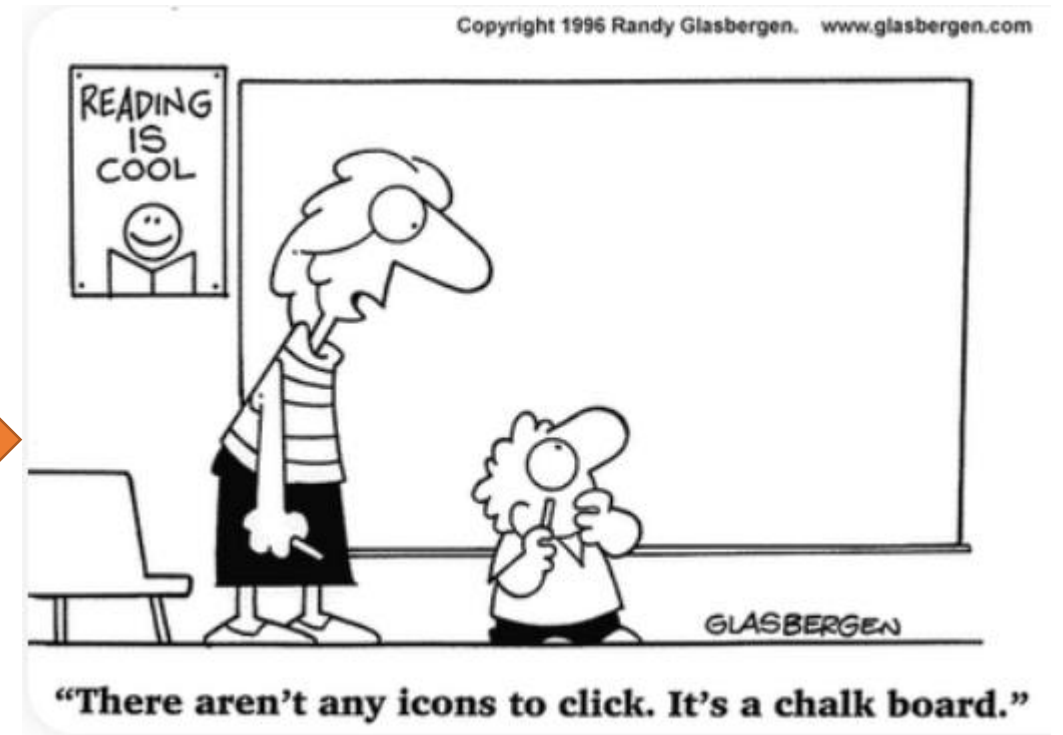
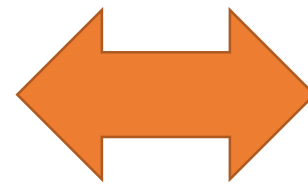
- Oral examinations have caused a lot of discussion
 - Technical requirements / stability of the system
 - Clear instructions / procedure of handling problems
 - Necessary effort to prevent „cheating“ or assistance by third person
- Practical (physical) exams
 - On-site (patient) exams are considered impossible to be replaced
 - Current practice: organise them with necessary adaptations

Specifics for veterinary training

- Federal (German) State regulated
 - Five faculties, five State governments and examination boards
 - Different interpretation and implementation of COVID19 measure
- Berlin: if highschool final exams can be offered on-site, then state veterinary exams must also be offered as originally planned
- Munich: no „on-site“ teaching and exam formats until now ...
- Main problem is and will continue to be intra- and extramural practical (clinical) training
- Equality of chances for the different student cohorts

Winter semester 2020/21

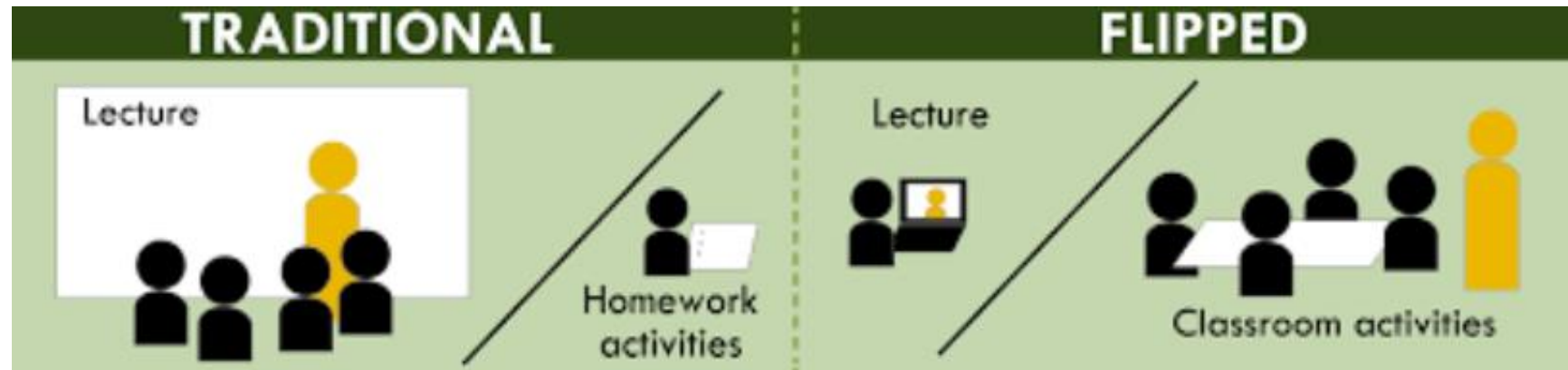
- Current plan (provided we can prevent a new lockdown)
 - Hybrid semester, all large (lecture-type) courses digital (online)
 - Smaller seminars & practical courses on-site
 - Requires adaptation of weekly schedule
 - Increased hygiene requirements (time & costs)
- Exams as required by Federal legislation
 - Increased hygiene requirements
 - Increased number of small group exams
 - Expected increase in student-induced cancellations -> could result in legal issues



Future

- We now have the technical tools and know-how to deliver most of our content digitally
 - Once theoretically possible, will we revert back to the pre-COVID19 teaching style (on-site fixed schedule teaching)?
 - What was good and (hopefully) will „stick“?
- How about our teaching requirements
 - Does the development and implementation of an online lecture series count similar when compared to a weekly physical lecture
 - Will this be supported by administration (and accepted by legal courts once challenged)
- Options for Inter- and transdisciplinary teaching & collaboration between faculties

Bended learning & flipped classroom designs



One of the main flaws of modern communication technologies such as

video conferences

