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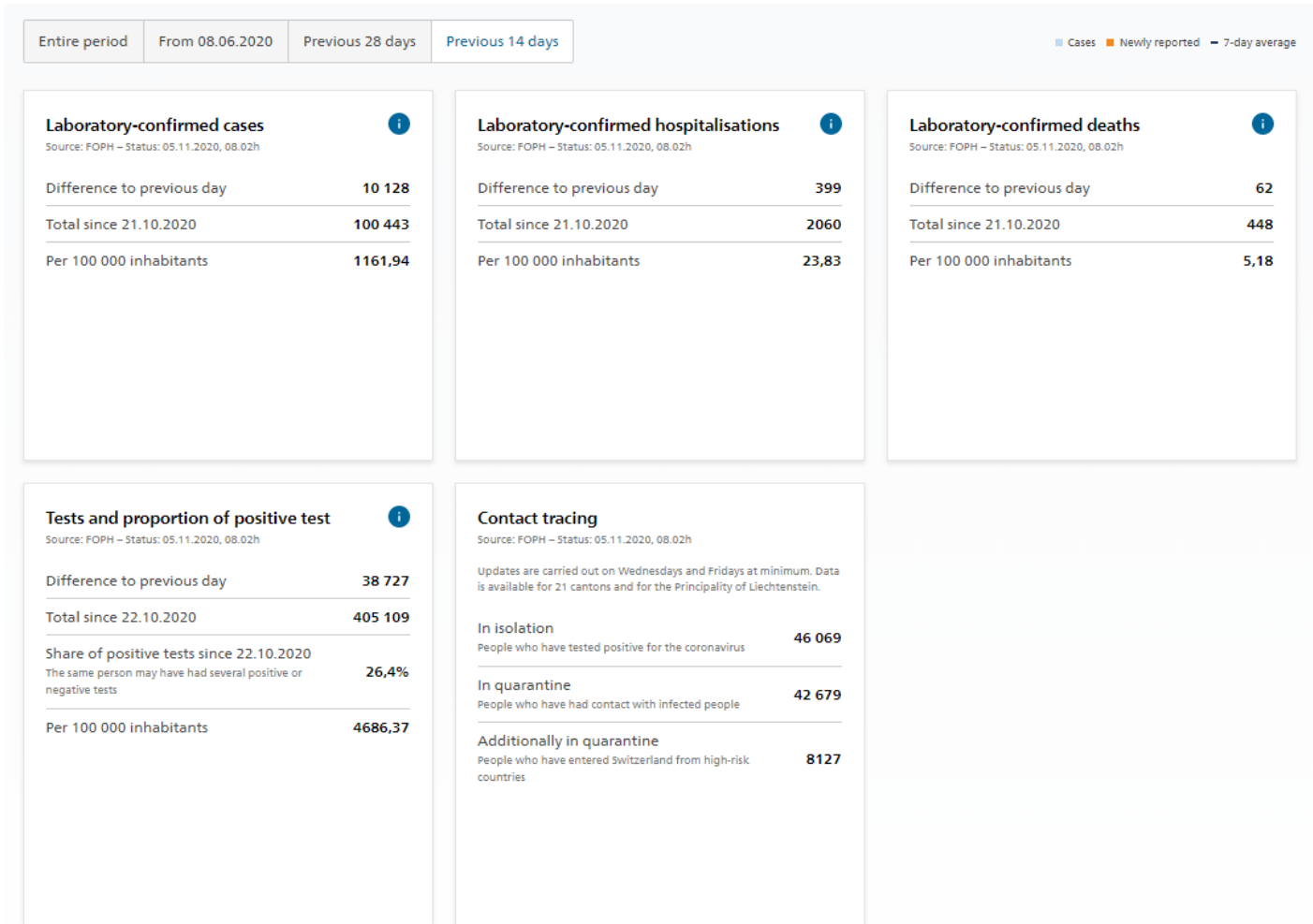
Eidgenössisches Departement des Innern EDI  
**Bundesamt für Gesundheit BAG**  
Direktionsbereich Öffentliche Gesundheit

# Communicating Public Health Statistics: The Dashboard Covid-19

Anne Laube, PhD



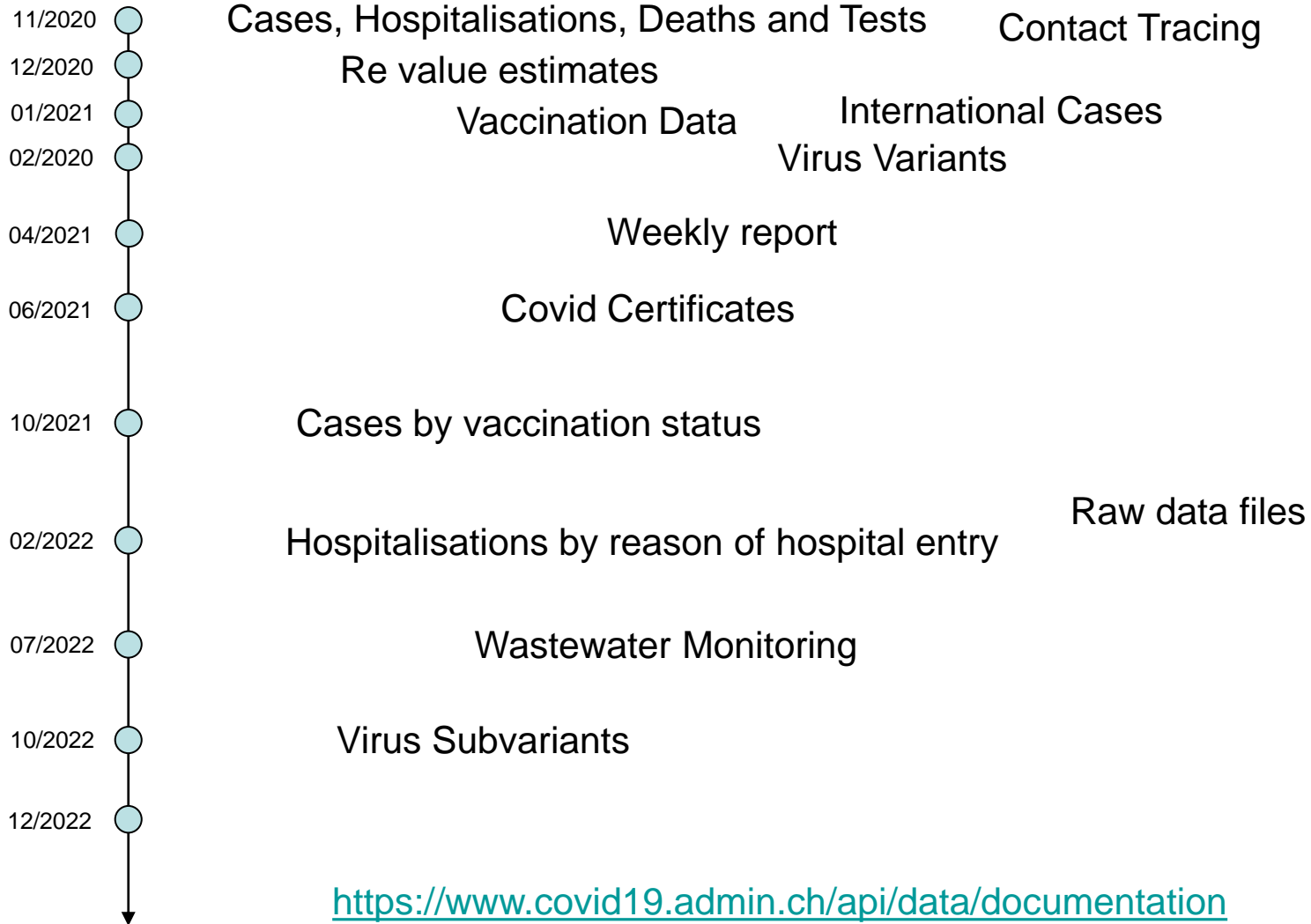
# How it started (11/2020)



<https://web.archive.org/web/20201105124444/https://www.covid19.admin.ch/en/>

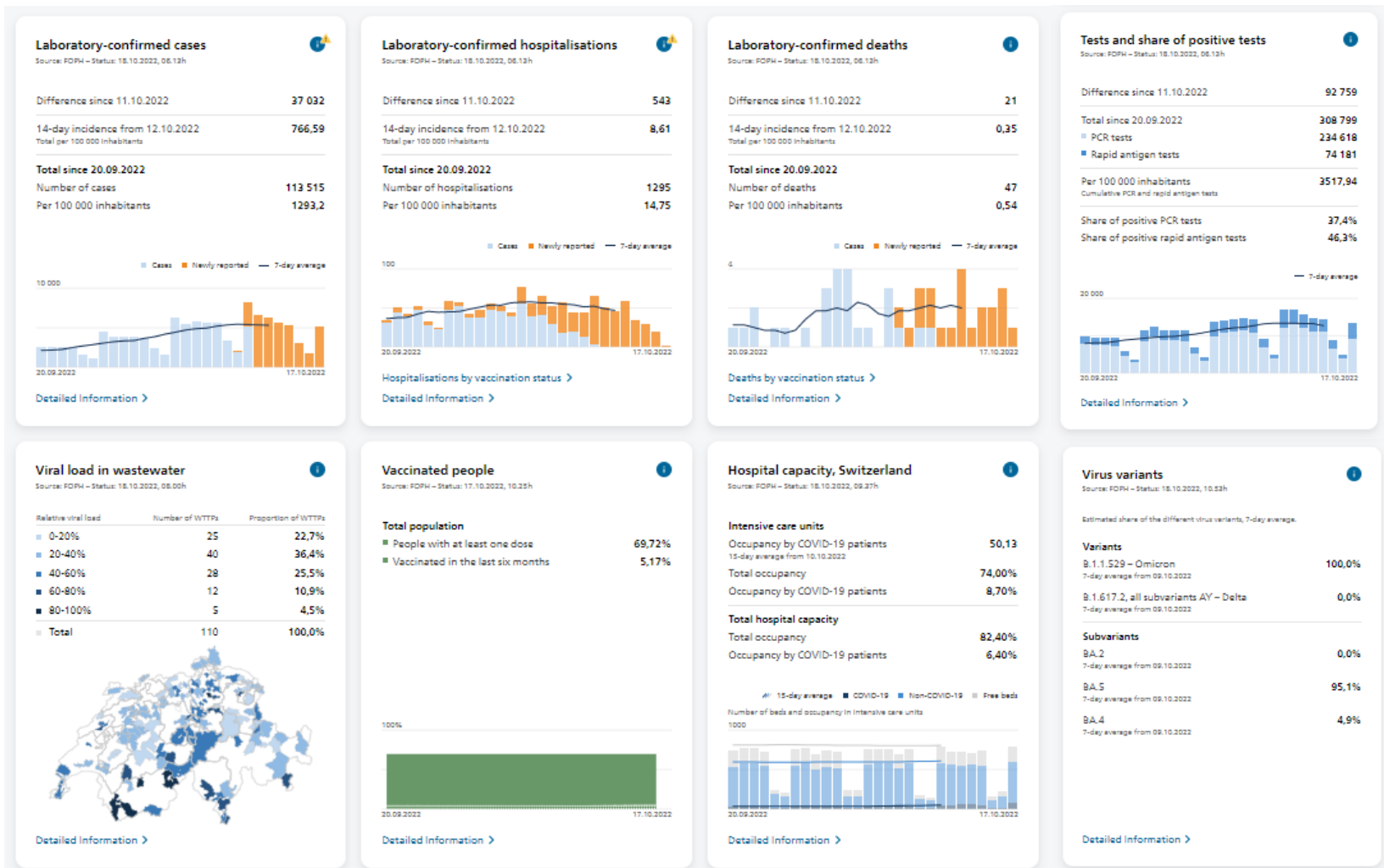


# Evolution: Rapid expansion of features





# How it's going





# Where we're at

- > 400 publications and 56 releases
- primary communication tool for the pandemic course
- scalable, future-proof system
- template for a new approach to communicate public (health) statistics
- we all learned a lot in the process (and still am!)



# Guiding Principles

- 1) Consistency
- 2) Transparency and Accessibility
- 3) Sustainability



# 1) Consistency

## a) data structures

- naming conventions
- formats
- level of aggregation

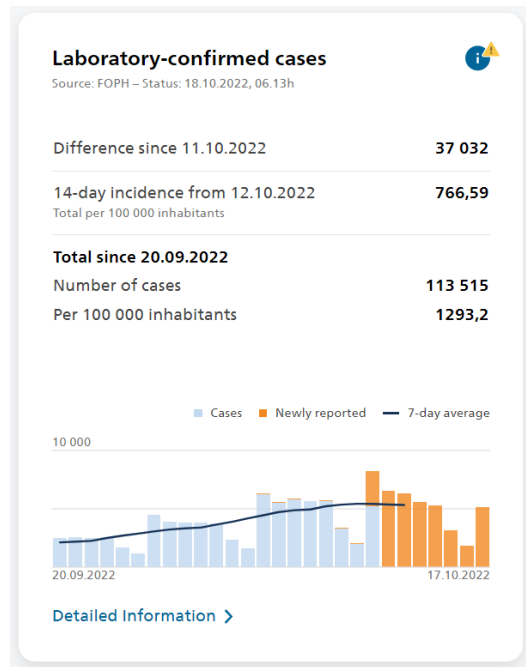
## b) visualisation

- style guide
- components



# 1) Consistency: Visualisation

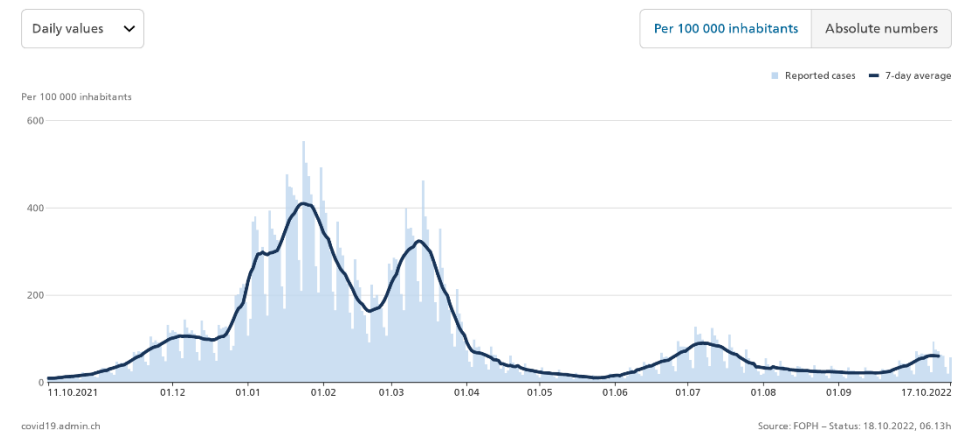
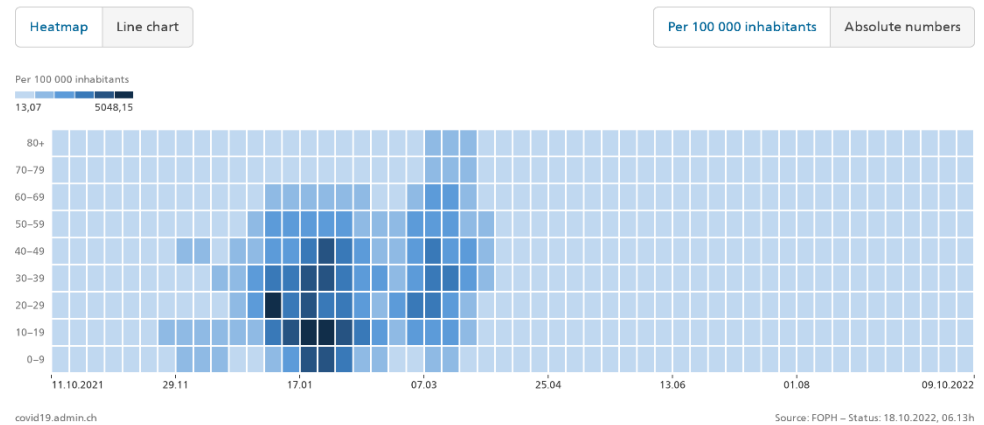
Overview cards



- Data as .csv file
- Data as .json file
- Data on opendata.swiss

Details: geocards, time series, heatmaps

Distribution by age group







## 2) Sustainability

- changes: costly, counteract consistency
- BUT: public interest may change, publication needs to stay relevant
- breaking changes: when worth it, make it to last



# 2) Sustainability: The case of virus variants

## Virusvarianten

Quelle: BAG – Stand: 11.10.2022, 10.41h

Aufgrund der Aufhebung der besonderen Lage kommt es zu einer Anpassung der Überwachung der Virusvarianten. Die Zahl der sequenzierten Proben wird geringer und es sind Meldeverzögerungen zu erwarten.

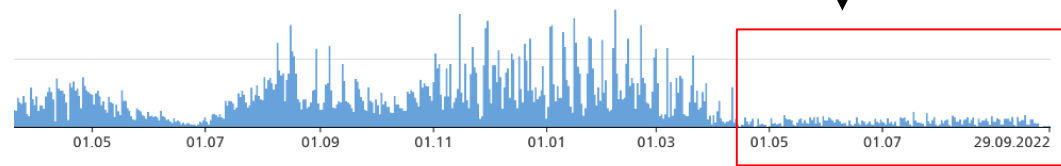
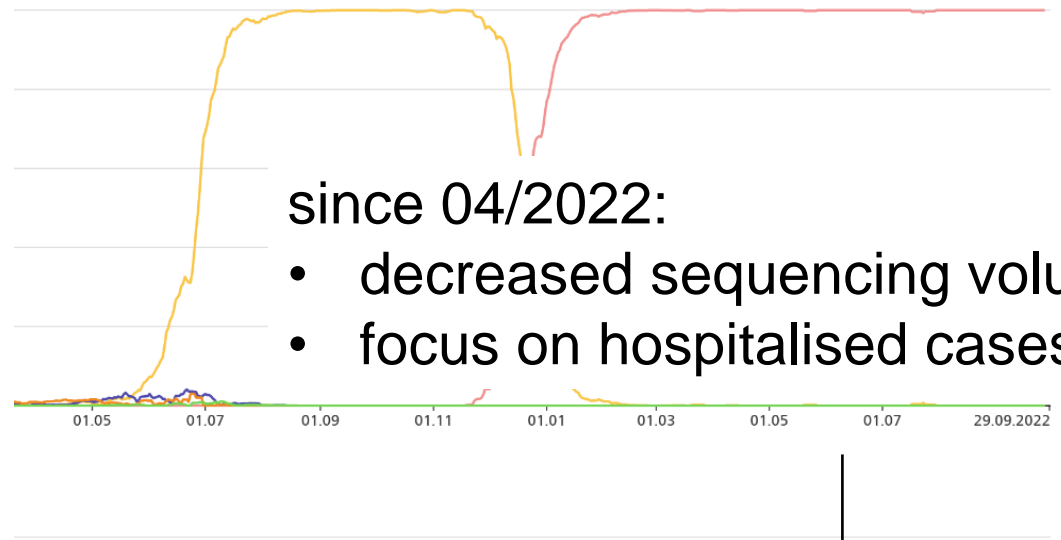
Geschätzter Anteil der verschiedenen Virusvarianten im 7-Tage-Schnitt.

B. 1.351 – Beta	7-Tage-Schnitt vom 26.09.2022	0,0%
P. 1 – Gamma	7-Tage-Schnitt vom 26.09.2022	0,0%
B. 1.617.2, alle Untervarianten AY - Delta	7-Tage-Schnitt vom 26.09.2022	0,0%
C.37 – Lambda	7-Tage-Schnitt vom 26.09.2022	0,0%
B. 1.1.529 – Omikron	7-Tage-Schnitt vom 26.09.2022	100,0%

since 01/2022:  
all Omikron, focus on subvariants

■ B.1.1.529 – Omikron ■ B.1.617.2, alle Untervarianten AY - Delta ■ P.1 – Gamma ■ B.1.351 – Beta ■ C.37 – Lambda

(7-Tage-Schnitt)



Quelle: BAG (Überwachung) – Stand: 11.10.2022, 10.41h



# 2) Sustainability: The case of virus variants

## Virusvarianten

Quelle: BAG – Stand: 18.10.2022, 10.53h

Geschätzter Anteil der verschiedenen Virusvarianten im 7-Tage-Schnitt.

### Varianten

B.1.1.529 – Omikron **100,0%**  
7-Tage-Schnitt vom 09.10.2022

B.1.617.2, alle Untervarianten AY - Delta **0,0%**  
7-Tage-Schnitt vom 09.10.2022

### Untervarianten

BA.2 **0,0%**  
7-Tage-Schnitt vom 09.10.2022

BA.5 **95,1%**  
7-Tage-Schnitt vom 09.10.2022

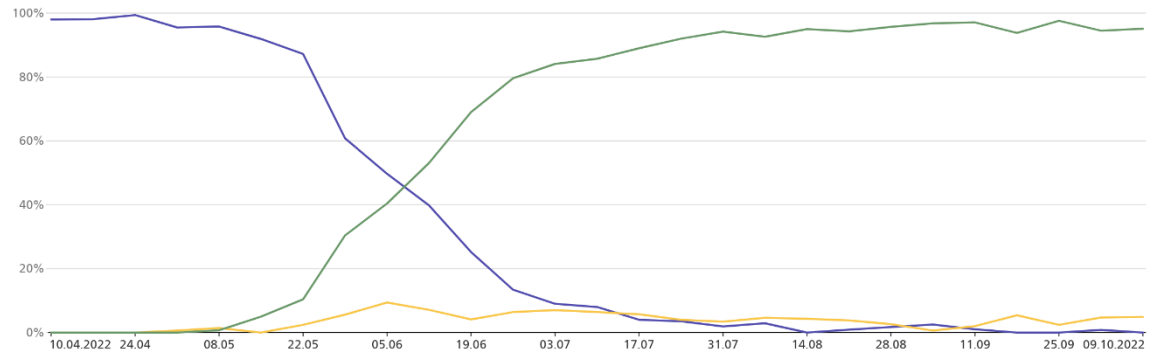
BA.4 **4,9%**  
7-Tage-Schnitt vom 09.10.2022

## Zeitliche Entwicklung, Varianten von Hospitalisationen

Nachgewiesene Virusvarianten, Schweiz und Liechtenstein, 04.04.2022 bis 09.10.2022

→
switch, default selection

Geschätzter Anteil an verschiedenen Virusvarianten



Probesequenzierung



covid19.admin.ch

Quelle: BAG (Überwachung) – Stand: 18.10.2022, 10.53h

Overview: variants + subvariants

weekly aggregation



### 3) Transparency and Accessibility

- transparency is key, but not that simple
- real-world data is far from complete and unbiased

Think about

- helpful and accessible visualisations
- which computations make sense:
  - shares, incidences
  - thresholds, confidence intervals
  - plausibility checks, QC and validation criteria

### 3) Transparency and Accessibility: The case of waste water monitoring

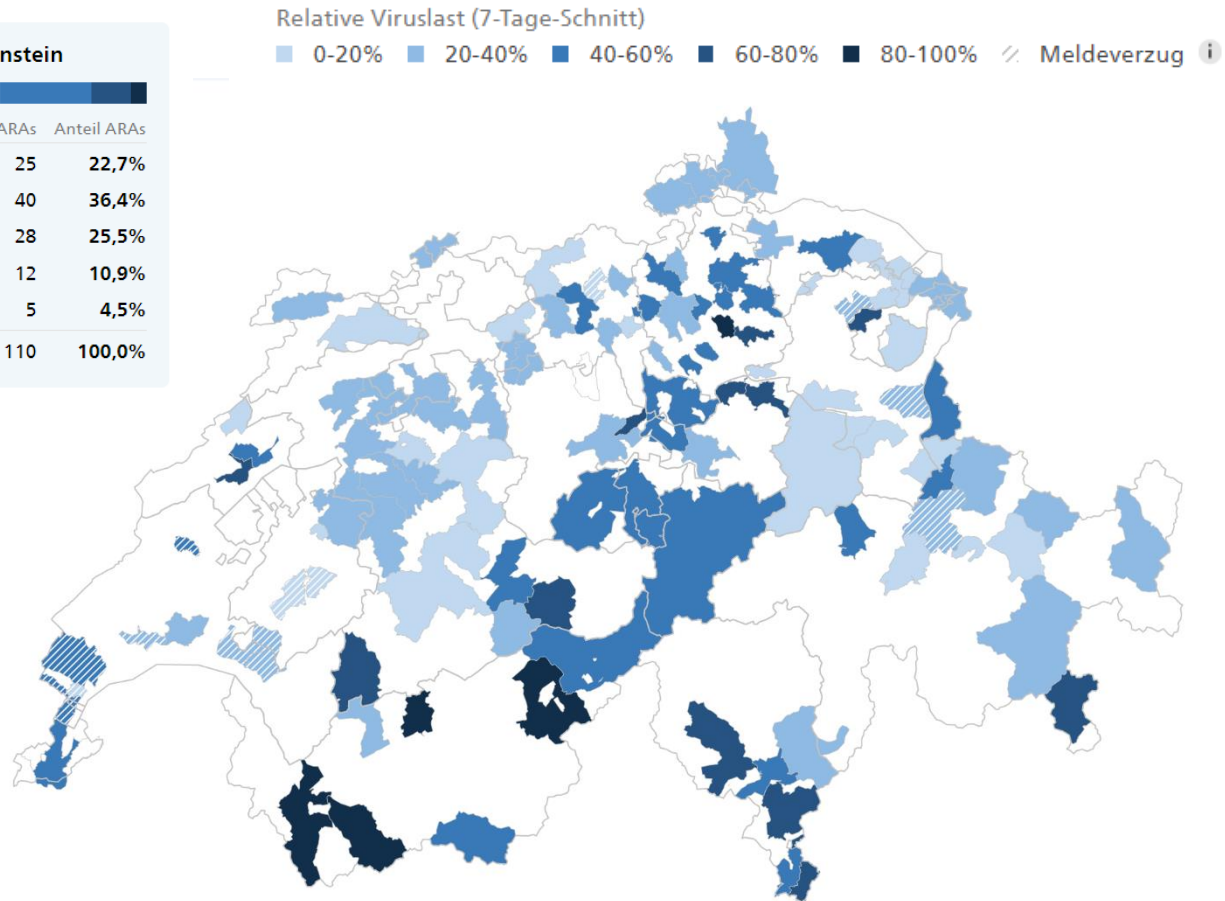
- complementary data source to assess virus circulation independent of testing activity
- sampling and analysis is not standardised between facilities and labs
- reporting delay complicates interpretation
- no aggregation into a cantonal / Swiss indicator



# 3) Transparency and Accessibility: The case of wastewater monitoring

Schweiz und Liechtenstein

Relative Viruslast	Anzahl ARAs	Anteil ARAs
0-20%	25	22,7%
20-40%	40	36,4%
40-60%	28	25,5%
60-80%	12	10,9%
80-100%	5	4,5%
<b>Total</b>	<b>110</b>	<b>100,0%</b>



covid19.admin.ch

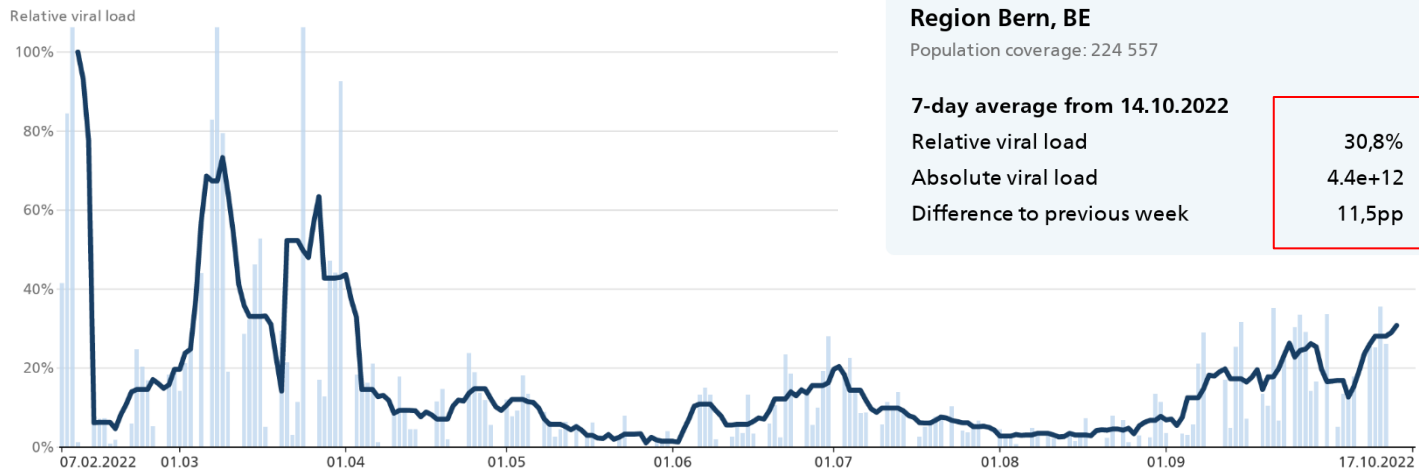
Quelle: BAG – Stand: 18.10.2022, 08.00h



# 3) Transparency and Accessibility: The case of wastewater monitoring

Introduction of two concepts:

- 1) Relative viral load: compare measurements of one waste water facility to its historical measurements
- 2) Difference to previous week: magnitude of change



covid19.admin.ch

Source: FOPH – Status: 18.10.2022, 08.00h



# To sum up

- be consistent in your outputs
- but also open for change: think about sustainable solutions
- transparency is key, which also means that your visualisations need to stay accessible
- check what works for your needs: dashboards can be great, but will require resources





**Thanks for your attention! – and  
special thanks to our partners:**



<https://www.shiftcode.ch/>



<https://www.interactivethings.com/>