

No Excess Deaths Among Children in Europe 2021-2022

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Excess Deaths among Children

- Claims of significant excess mortality among children (ages 0 to 14) in Europe during 2021-2022:
“There appears to be an increase in excess deaths among children of between 700% and 1600” [Question for EUC by Kuhs & Graaff (ID), September 2022]
- What caused this excess?

Excess Deaths among Children

- This is the wrong question.
- There's no reason to study what caused children excess deaths, because there is none.
- Evaluation of raw data and excess mortality analysis show that children deaths in 2021-2022 are completely in-line with deaths from previous years in most European countries, and in many cases even lower.

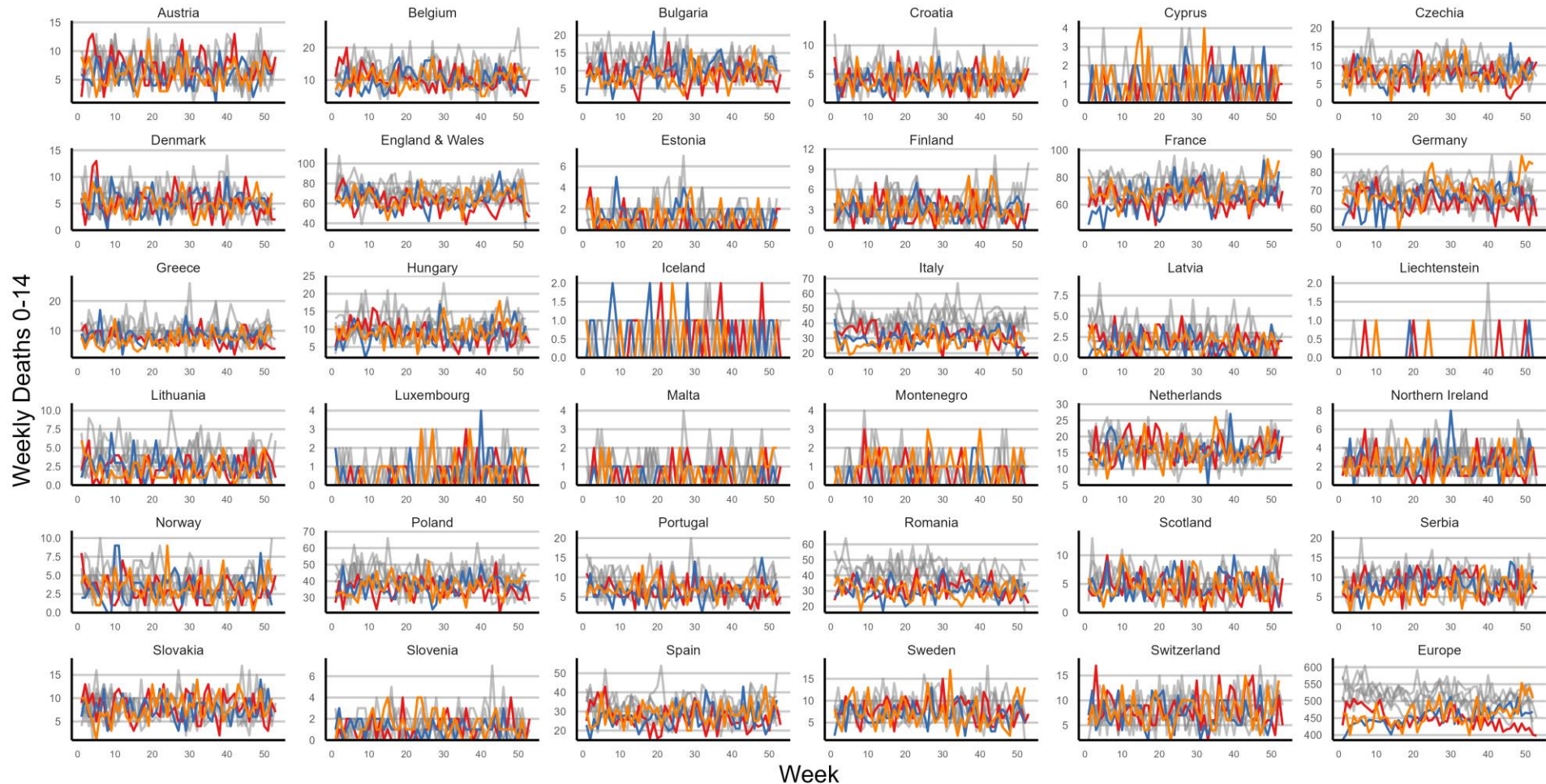
Data and Methods

- Weekly deaths in ages 0 to 14 by country-year from EuroStat & HMD's Short Term Mortality Fluctuations (STMF)
- World Mortality Dataset (WMD) excess deaths model

Raw Weekly Data

Weekly Deaths ages 0 to 14 in Europe

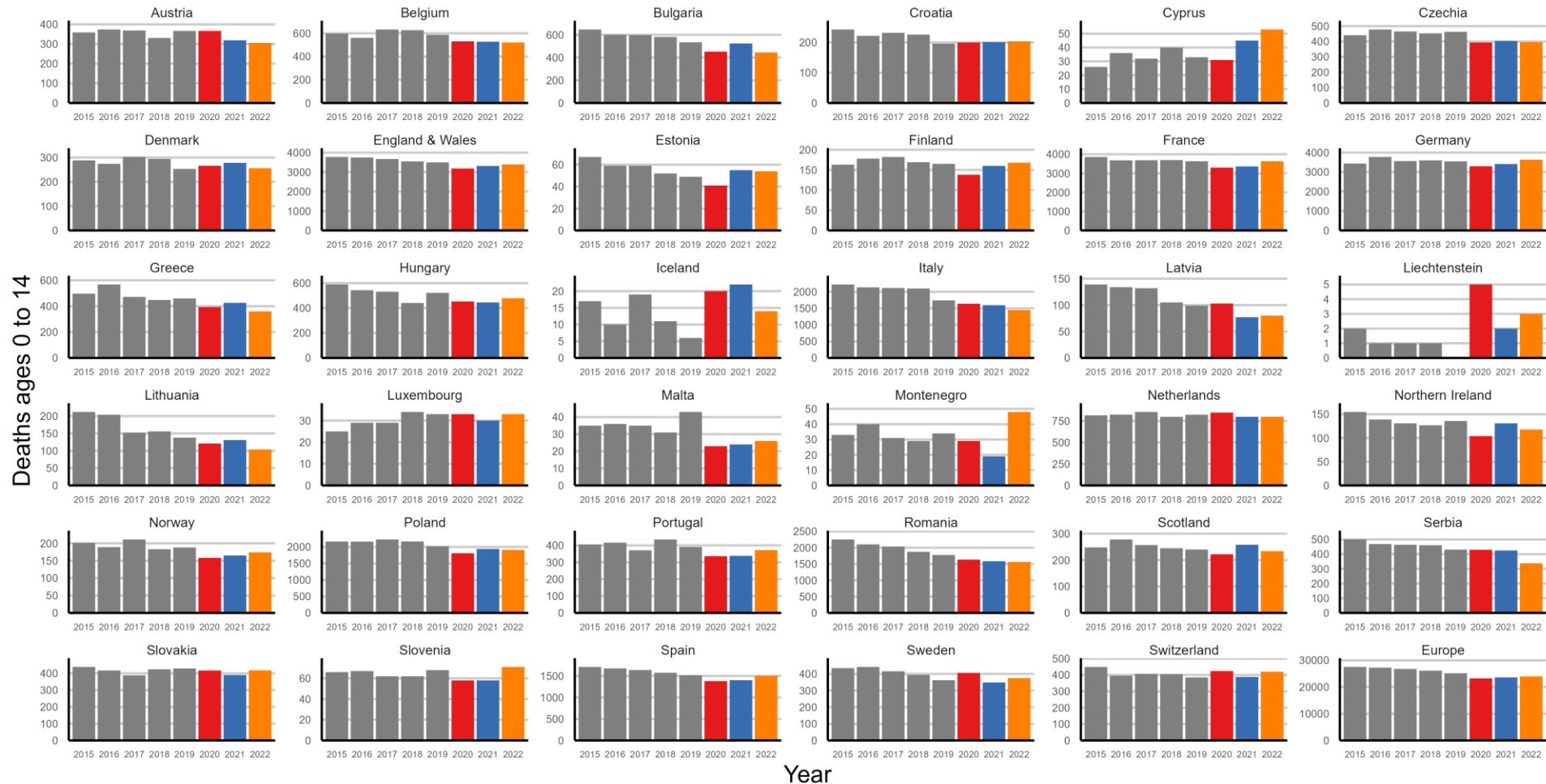
Orange: 2022; Blue: 2021; Red: 2020; Grey: 2015-2019



Raw Annual Data

Figure 1: Children Deaths in Europe 2015-2022

Children: ages 0 to 14



Model Analysis

- Weekly deaths in ages 0 to 14 by country-year from EuroStat & HMD's Short Term Mortality Fluctuations (STMF)
- World Mortality Dataset (WMD) excess deaths model

$$D_{t,Y} = \alpha_t + \beta \cdot Y + \epsilon.$$

Model Analysis

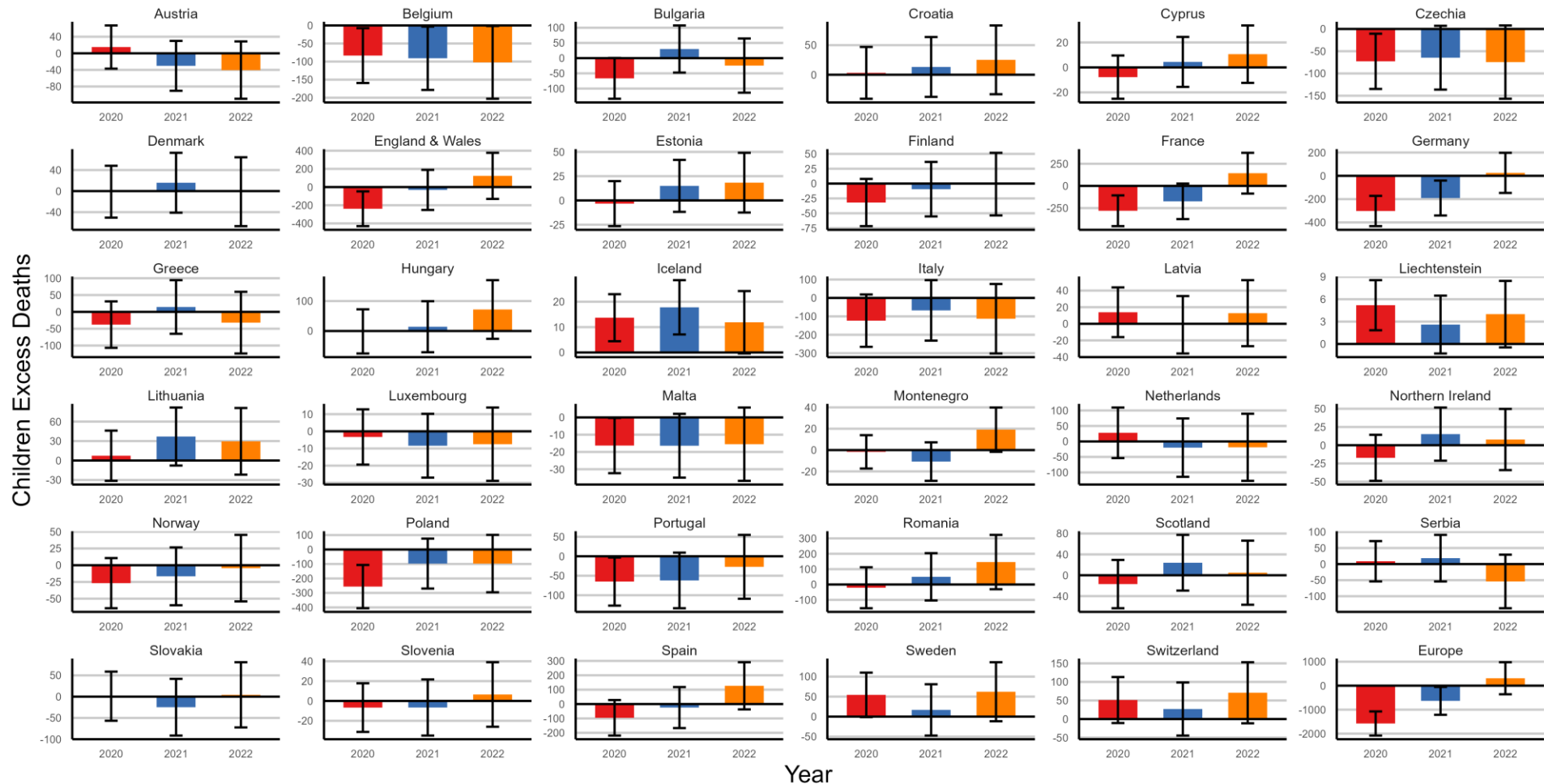
- In the WMD model: Sum of predictions = Prediction of the sum.
- Deaths can be broken down by age group, deaths by country aggregated to by region/continent, etc.
- Forecast Variance is derived by combining uncertainty in the coefficients (linear combination) and in dependent variable:

$$\text{Var}[\Delta] = \text{Var}\left[\sum_t w_t \hat{B}_t\right] + \sum_t w_t \hat{\sigma}^2 = \mathbf{w}^\top \mathbf{S} \mathbf{w} + \hat{\sigma}^2 \|\mathbf{w}\|_1$$

Model Analysis

Figure 2: Children Excess Mortality Estimates in Europe 2020-2022

Children: ages 0 to 14

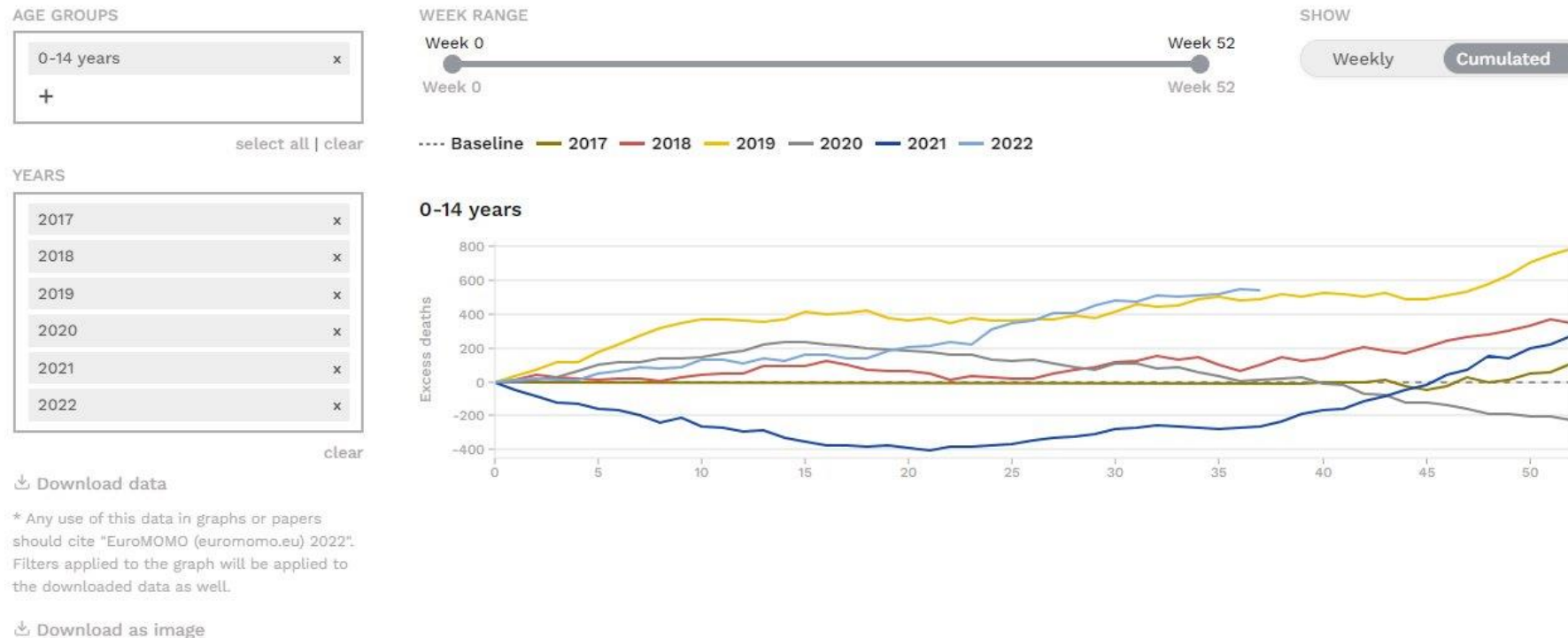


Model Analysis

- In Germany, Excess [SE] in 2022 is 25 (88).
- Out of the 35 countries, 2022 excess is;
 - Positive (20)
 - Negative (15)
 - Statistically significant only in Belgium (negative)
- In total in Europe 2022 excess is 309 [341].

Origin of Claims of Children Excess Deaths

- EuroMOMO estimated about 950 excess deaths in European Children up to October 10 2022



**Question for written answer E-003141/2022/rev.1
to the Commission**

Rule 138

Joachim Kuhs (ID), Marcel de Graaff (ID)

Subject: Excess deaths among children: an apparent increase of 700–1 600 %

Various reports are circulating about excess mortality – particularly in relation to children – and a possible link with COVID-19 vaccines. Among other things, reference is made to data from EuroMOMO and the research that the EU may be conducting in this regard. There appears to be an increase in excess deaths among children of between 700 and 1 600 %¹.

Our citizens have a moral and legal right to know the truth. With this in mind:

1. Is the Commission aware of the reports about excess mortality, and can it indicate whether there is a possible correlation with COVID-19 vaccines?
2. Can it say whether it is conducting research into the possible causes of this excess mortality, including COVID-19 vaccines; if not, why not, and how does this square with the Commission's duty of care to protect citizens' fundamental rights?
3. Is it prepared to disclose all of the data relating to these deaths, including their possible causes and correlation with COVID-19 vaccination status?

Note on observed excess mortality in the age group 0-14 years during 2021-2022

Since mid-2021, some unusual excess mortality signals have been observed in the age group of 0-14 years. EuroMOMO is looking into

<https://www.euromomo.eu/bulletins/2022-40/>

10/21/22, 3:48 PM

EuroMOMO Bulletin, Week 40, 2022 — EUROMOMO

the possible explanation for these signals, in consultation with participating countries in the network.

From a methodological perspective, it is important to note that the mortality baseline applied currently in the EuroMOMO excess mortality algorithm does not include any mortality data from 2020, 2021 or 2022, which will be affected by varying excess mortality associated with the overall impact of the COVID-19 pandemic including varying restrictions, which could bias the “normal” level of mortality.

Furthermore, it should again be stressed that EuroMOMO does not collect any data beyond mortality data to answer questions about causality in observed mortality signals. Therefore, EuroMOMO’s outputs should not, in any way, be cited as “evidence” for any underlying causes of unusual mortality patterns.

Conclusion and Discussion

- No need to explain causes of “unusual mortality patterns” if there is none.
- This caused unintended confusion and misinformation.
- Research and Policy have to be better at producing estimates.
Access and release of raw data is ALWAYS BETTER.

Conclusion and Discussion

- Law of Small Numbers: “600% increase in excess” (if was true) is due to small baseline/denominator.
Demographers love rates but these can be highly misleading if denominators are very small.
- Need to properly communicate uncertainty in estimates.
A large estimate may hide behind a wide confidence interval which reflects large uncertainty and low signal to noise ratio.