

**EMBARGOED UNTIL 11 FEBRUARY 2022 at 20:00 CET (14:00 EASTERN TIME)**

## **Vaccine hesitancy and vaccine refusal: the long-term development in Germany**

**Vaccine hesitancy has been around since long before the coronavirus pandemic. A research team from Konstanz and Berlin is now examining how vaccination rates and vaccine hesitancy developed in the time before the pandemic.**

**The topic of "vaccine hesitancy" is receiving a lot of attention in the coronavirus pandemic. But how have vaccine hesitancy and vaccination rates in Germany developed over the past few decades? Professor Claudia Diehl from the Cluster of Excellence "The Politics of Inequality" at the University of Konstanz and Dr Christian Hunkler from the Humboldt Universität zu Berlin show: Although the group of vaccine sceptics has become smaller in recent decades, it has also become more determined.**

Vaccine hesitancy and opposition to vaccinations were already a much-discussed topic before the pandemic. However, little is known about long-term trends due to a lack of data. Claudia Diehl and Christian Hunkler have now investigated this development. Based on the KiGGS cohort longitudinal study on the health of children, adolescents and young adults in Germany by the Robert Koch Institute (RKI), they analyze the attitudes of parents and corresponding vaccination rates of children born until the beginning of the 2000s and compared them with those of parents whose children were born around the end of the 1980s. Their focus is on childhood vaccinations against measles, mumps and rubella (MMR). Vaccine-hesitant parents are those who – irrespective of their actual vaccination decisions – have reservations about the MMR vaccination, i.e. they worry about side effects or consider the corresponding diseases to be harmless.

The results have now been published in the journal PLOS ONE on 11 February 2022. They show that vaccination rates have increased, and the proportion of vaccine-hesitant parents has decreased across birth cohorts – from around 10% of children born at the end of the 1980s to around 6% among those born around the year 2000. According to KiGGS data, the group of vaccination sceptics more often includes people with middle and high levels of education as well as people living in large cities, and less often immigrants and East Germans.

However, when taking a closer look at the data, the authors also found an opposite trend – namely among the small and shrinking group of vaccine-hesitant parents. Their children are not vaccinated more frequently across the birth cohorts, but on the contrary, less and less frequently. In the corresponding period, the proportion of vaccinated children in this group fell from around 50 to a good 20 percent. "The group of vaccine-hesitant parents has apparently become smaller, but also more determined," concludes Claudia Diehl, author of the study. This means that they are more likely to act

in line with their vaccine-hesitant views and actually do not have their children vaccinated. Until the end of the 1980s, vaccine-hesitant parents apparently frequently followed the experts' recommendations and had their children vaccinated despite their reservations, Diehl suspects. This was less often the case with children born later. In fact, scepticism towards "scientifically based" medicine was already growing at that time, as was interest in supposed "experts" from the field of alternative medicine and homoeopathy, who are more often sceptical of vaccines, Diehl notes.

"One could assume that the internet, providing easy access to vaccine-critical disinformation, is responsible for this development. But to our surprise, it turned out that the trend described began even before the mass use of the internet. This does not mean that the internet does not play a role in explaining vaccine hesitancy today, however: "The trend we are describing ends in the late 1990s, and it was only around that time that a significant part of the population started to use the internet as a source of information.

Although the data do not allow statements about the last two decades, important conclusions can be drawn for the current situation, Claudia Diehl explains: "In the case of measles vaccinations, it has become evident that even a small group of determined vaccination sceptics is enough to prevent the elimination of highly contagious viruses despite great efforts."

**Key facts:**

- Embargoed until 11 February 2022 at 20:00 CET (14:00 Eastern Time)
- New publication: Claudia Diehl, Christian Hunkler (2022): Vaccination-related attitudes and behavior across birth cohorts: Evidence from Germany, PLOS ONE, published on 11 February 2022  
Link: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0263871>  
(available from 11 February 2022, 20:00 CET / 14:00 Eastern Time)
- Professor Claudia Diehl is professor of microsociology at the University of Konstanz and co-speaker of the Cluster of Excellence "The Politics of Inequality". She is a political advisor in several academic committees and carries out research on the educational success of school students, integration, xenophobia and discrimination, as well as international migration.
- Dr Christian Hunkler is an academic staff member at the Humboldt-Universität zu Berlin. His current research focuses on integration, inequalities in the labour market and the use of big data in social research.

Note to editors:

You can download a photograph of Claudia Diehl from:

[https://cms.uni-konstanz.de/fileadmin/exzellenz/inequality/Personen/Diehl\\_Claudia.jpg](https://cms.uni-konstanz.de/fileadmin/exzellenz/inequality/Personen/Diehl_Claudia.jpg)

Caption: Professor Claudia Diehl, professor of microsociology and co-speaker of the Cluster of Excellence "The Politics of Inequality" at the University of Konstanz

Image: Ines Janas

A photograph of Christian Hunkler is available from:

<https://www.bim.hu-berlin.de/de/personen/dr-christian-hunkler/>

Caption: Dr Christian Hunkler, academic staff member at the Humboldt-Universität zu Berlin

Image: David Ausserhofer