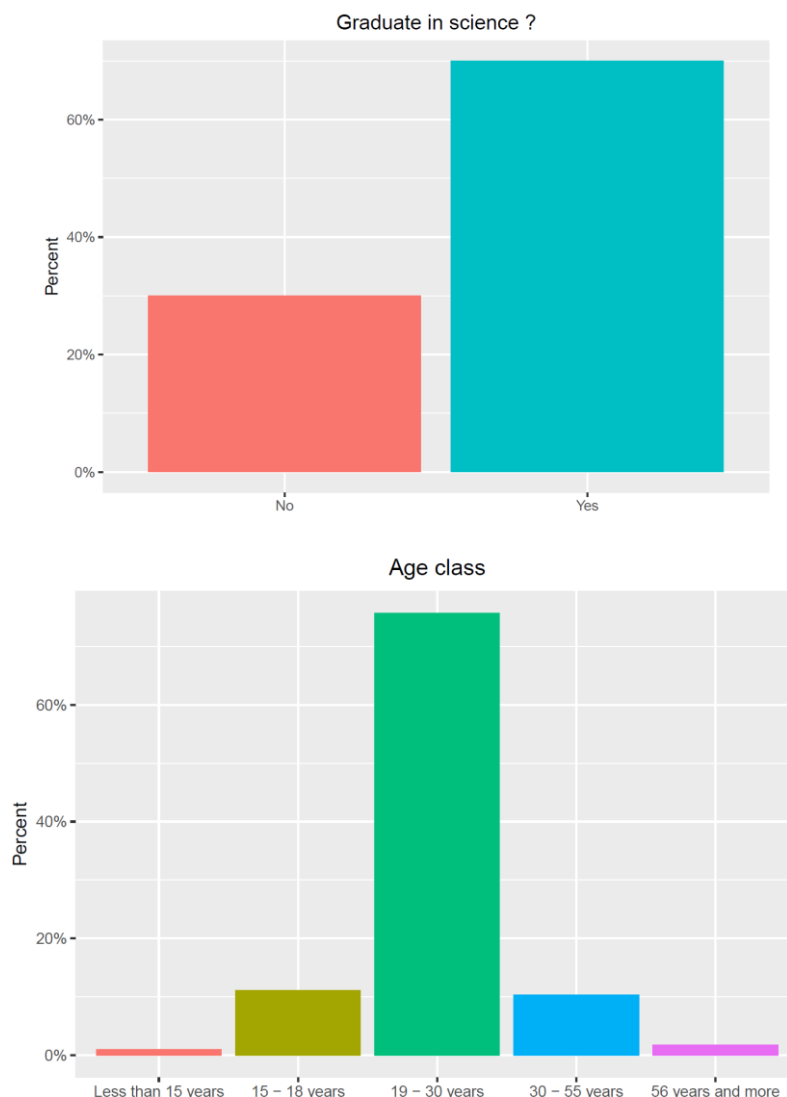


Survey

Context

We created a survey to get more insights into the public perception of Cholera and its expectation toward a device to treat drinkable water. The survey was filled in by 510 persons. Analysis was performed with the help of Sandrine Laguerre using the “R” freeware with packages library(ggplot2) and library(FactoMineR).

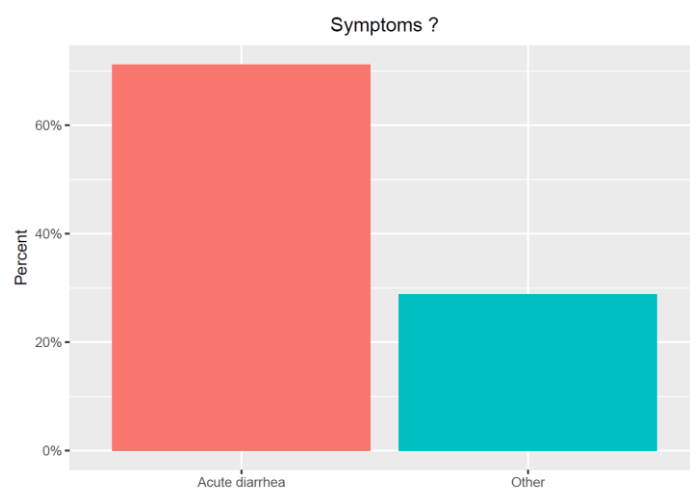
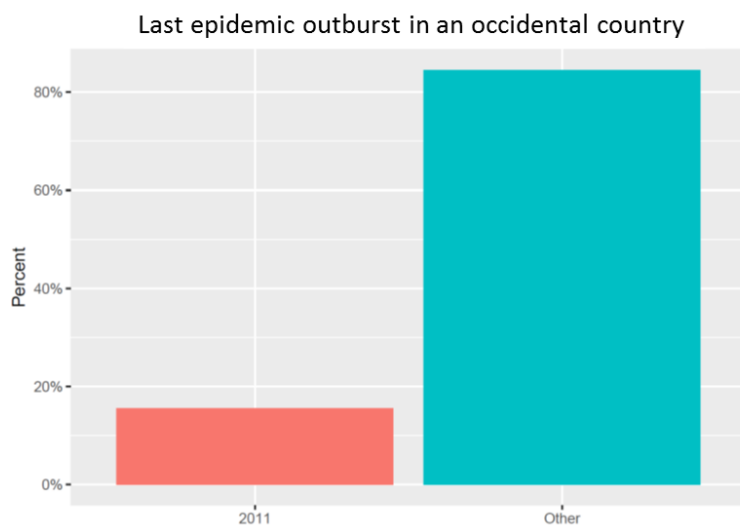
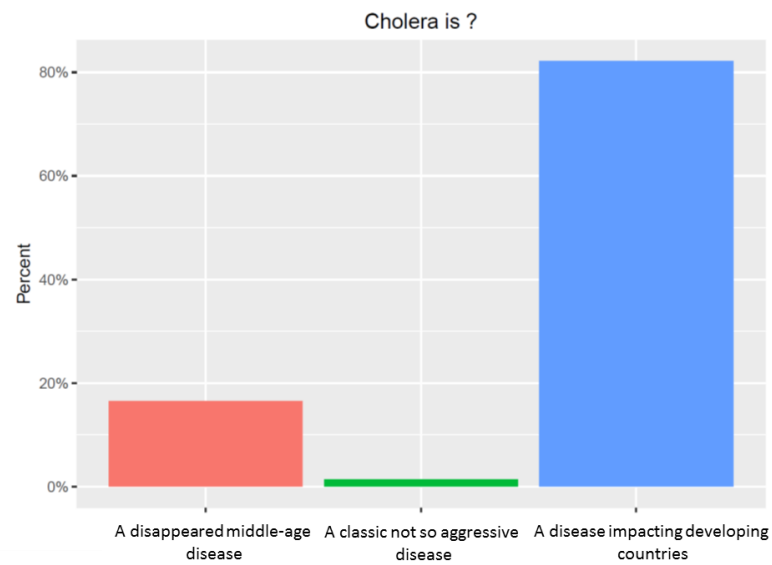
Since the survey was mainly led during scientific events where the iGEM team participated, there could be biases due to age or education of the participants. These parameters were therefore asked during the survey and used to refine our conclusions.



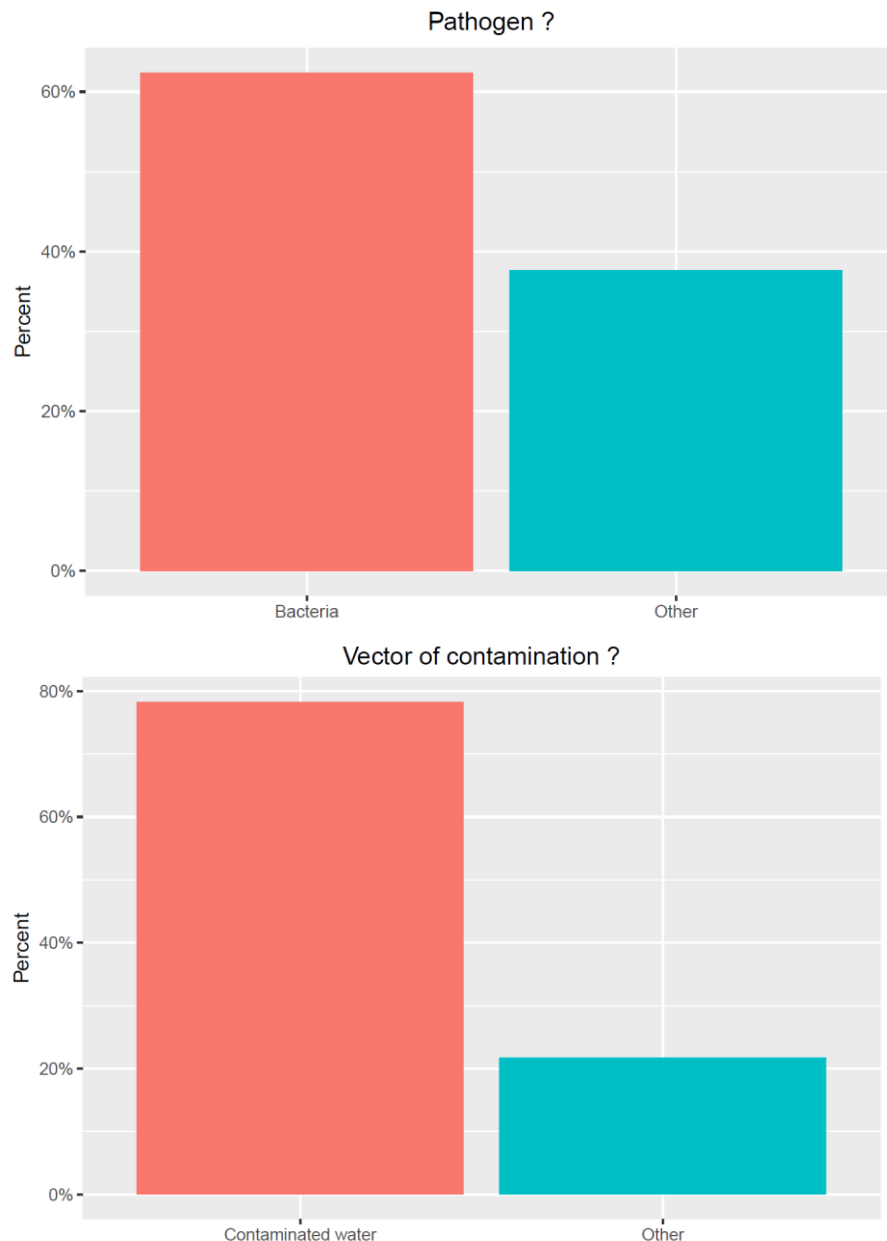
Knowledge of the public about cholera:

The first type of questions asked to the respondents was about their knowledge of cholera. It appears that the overall knowledge of what is cholera, its symptoms and causes, is fairly good in the population. More than 80% of people know for example that cholera is present in developing countries or is transmitted by contaminated water. On the other hand, they are a huge majority to fail knowing that Cholera is still present nowadays even in occidental countries.

Survey

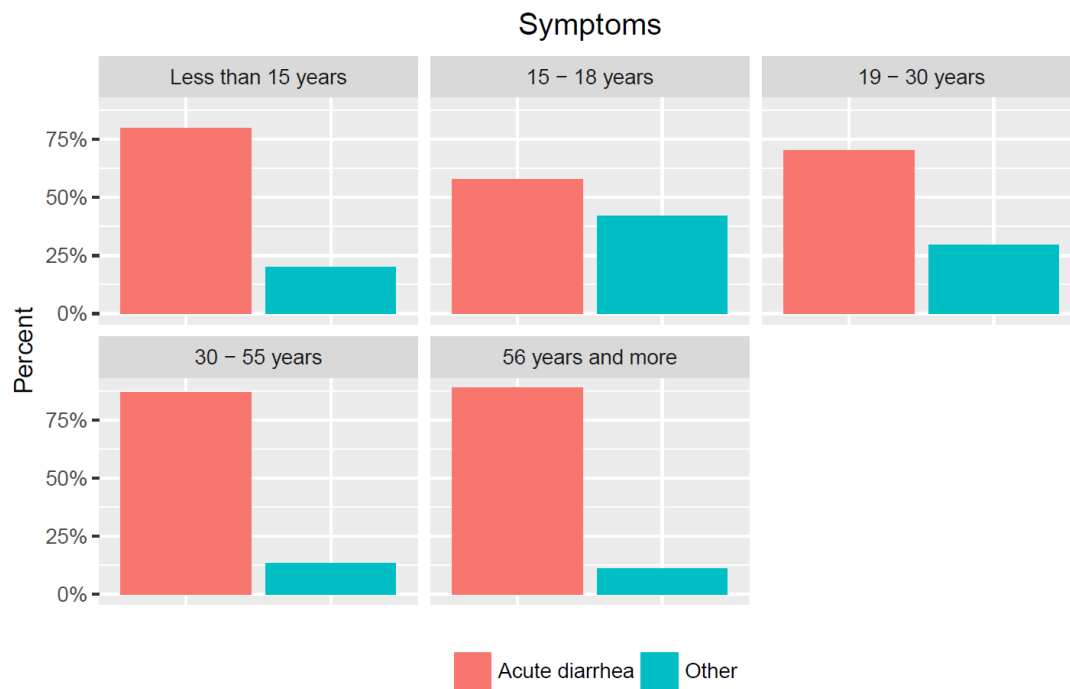


Survey



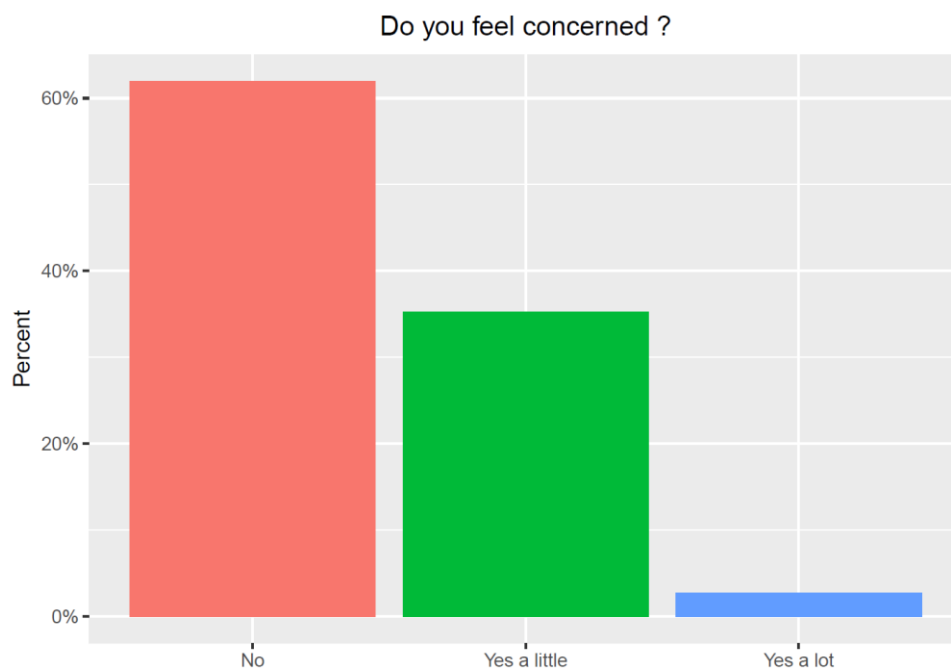
Interestingly, these answers are clearly related to the age of participants, with better knowledge of cholera from people over 30. We used Fisher's exact p-value to quantify this influence (the lower the value, the higher the significance). For example, age was found to be a determinant to the cholera symptom knowledge with an associated Fisher's exact p-value of 0.008621. The scientific background has a similar influence on these question (Fisher's exact p-value of 0.0092 for the symptoms).

Survey



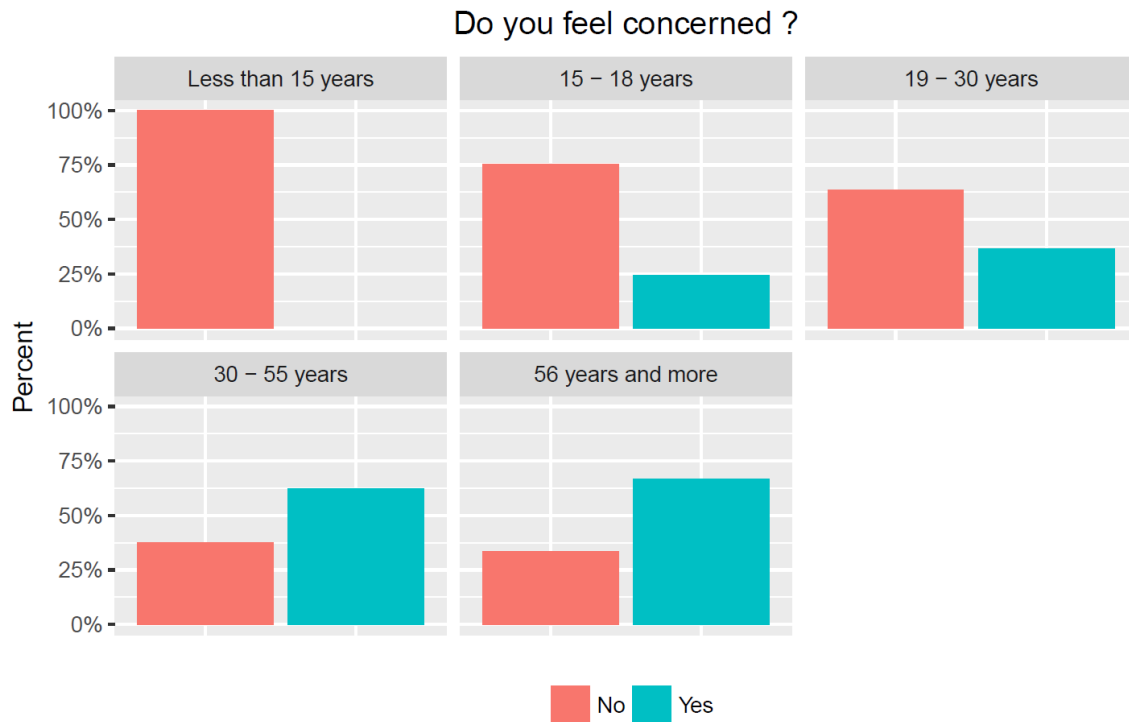
A device against cholera

The second round of questions was about their perception of GMMs use and of a device to treat cholera. First, most people does not feel concerned about cholera. This is not very surprising since the survey was conducted in France and the last cholera outburst in France was in 1832.

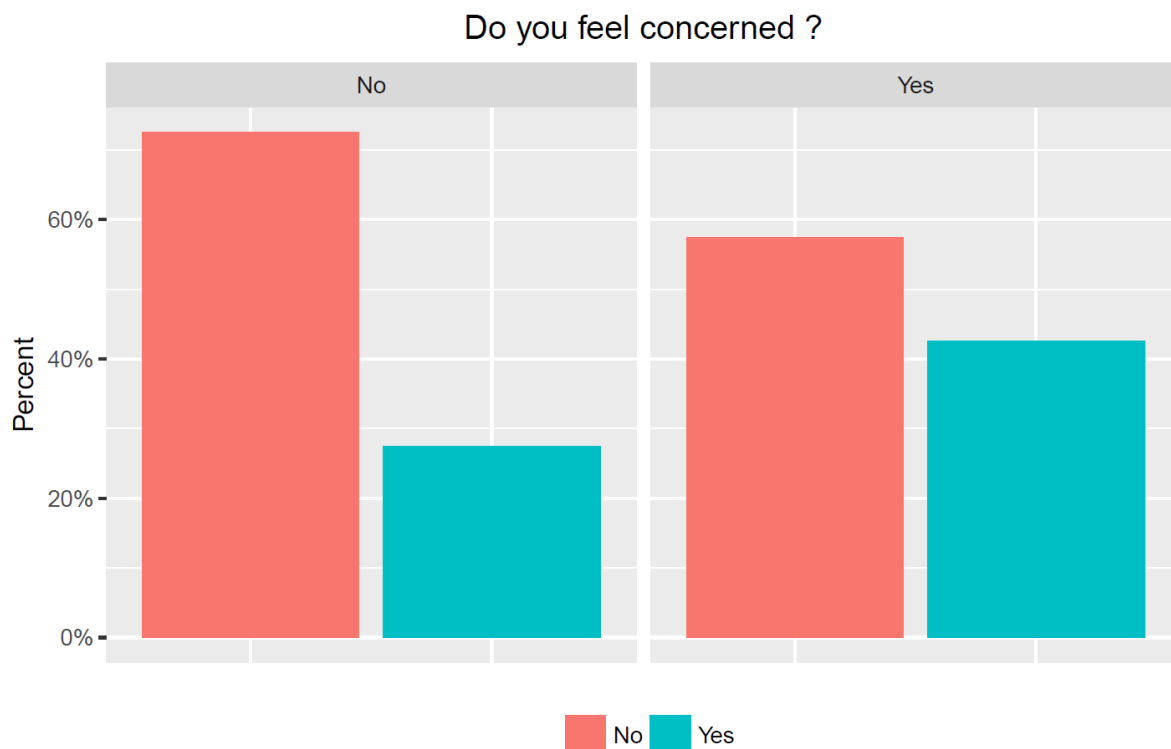


Here too, age is influencing the response (Fisher's exact p-value 0.00005), with a concern growing with the age.

Survey

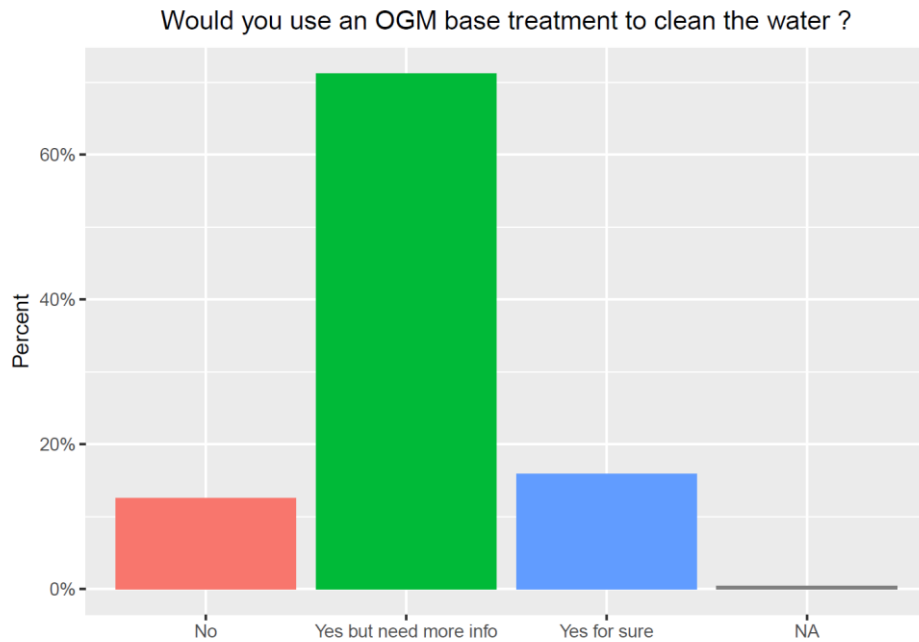


The scientific background also influences these results (Fisher's exact p-value 0.001411): people with a scientific background are more concerned about Cholera.

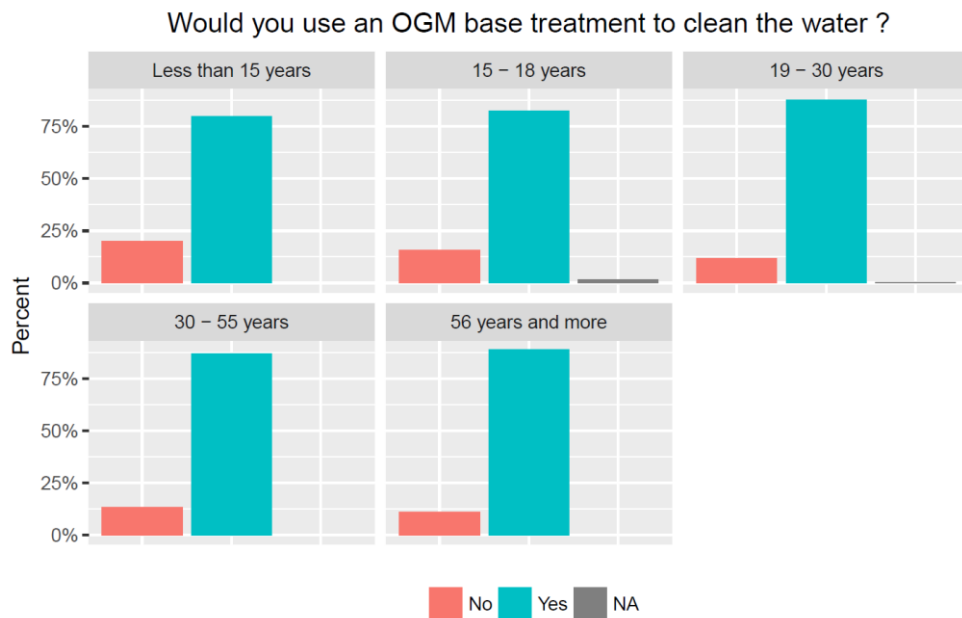


Survey

The question about the use of GMO to treat water suggests that the public is not against the idea to use GMO to ensure water safety.

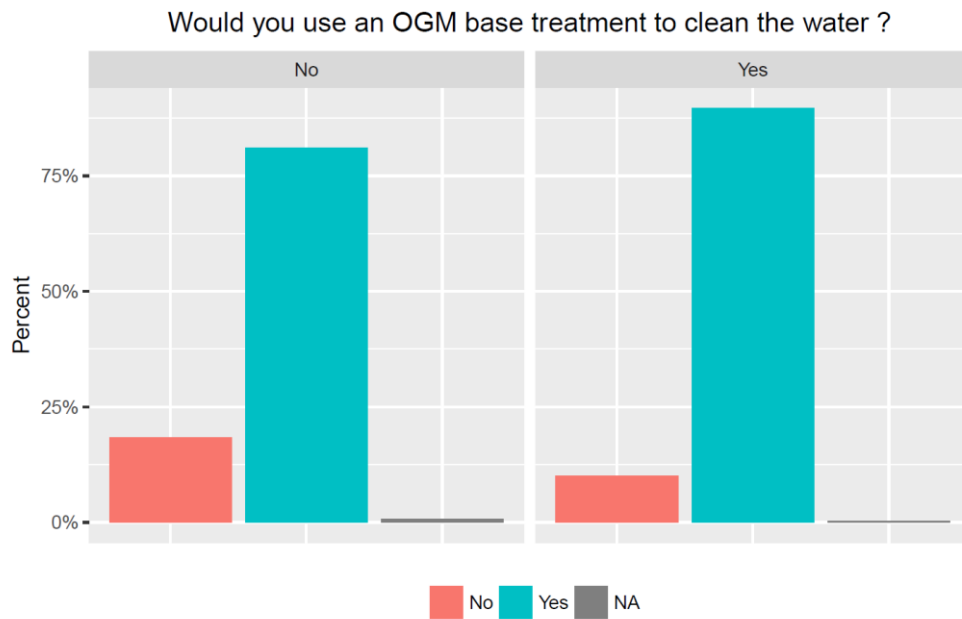


Interestingly, the answer does not seem related to age (Fisher's exact p-value 0.733795), which mean that knowledge or fear about GMO is equally distributed in the population.

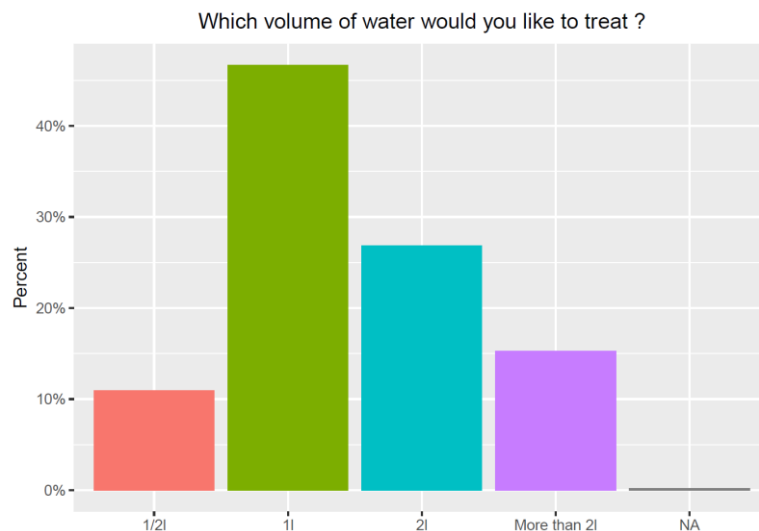


However, the scientific background influences the confidence to use GMMs (Fisher's exact p-value 0.0012788).

Survey

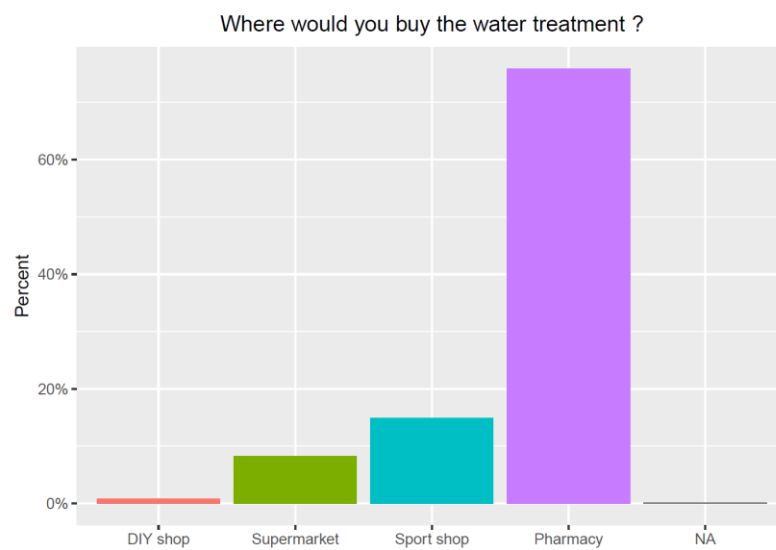
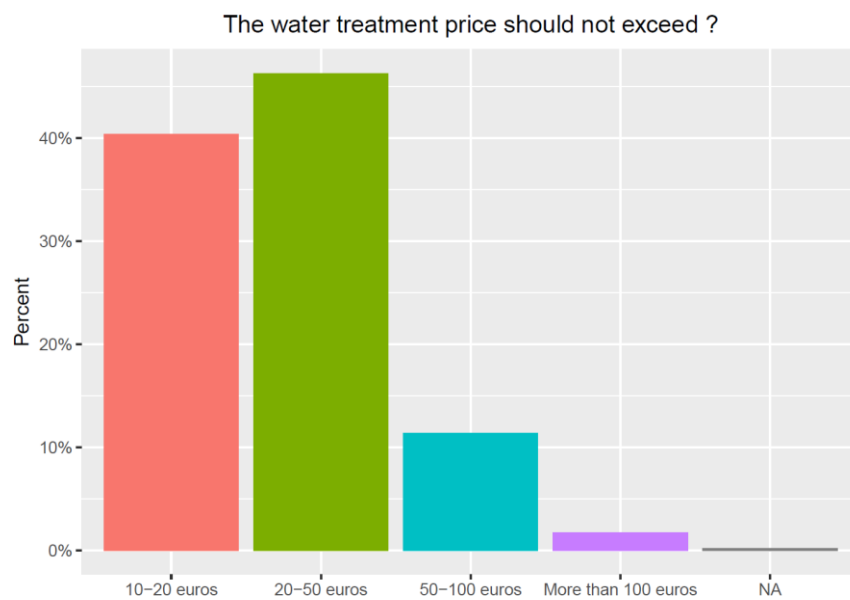
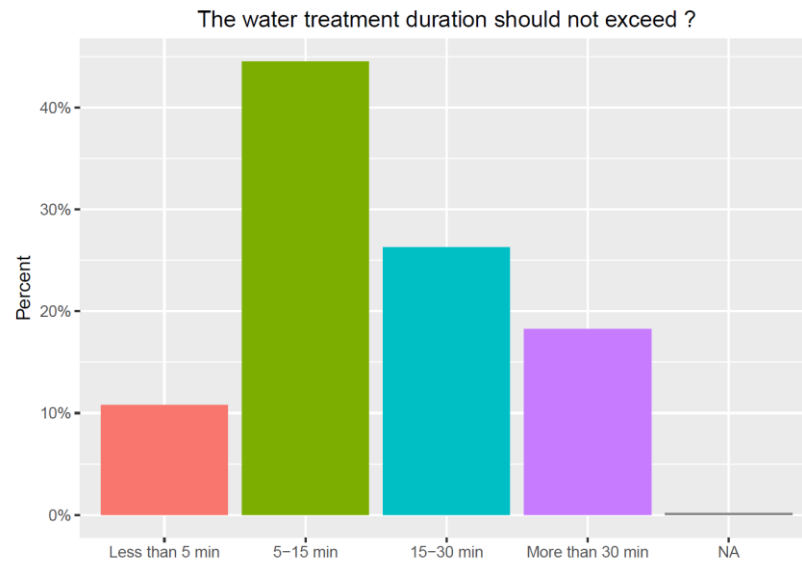


We also asked questions about the design of our device. It appears that for the occidental public, the volume of water to treat should be 1 liter. This is likely with the idea to treat water during hiking trip for example, and this could actually differ from what people in developing could require (50 liters tanks for example).



People would also enjoyed to have a fast and efficient device with drinkable water obtained in less than 15 minutes and they are ok to pay up to 50 euros to get such a device. They also think that the place to get it should be in pharmacy. These results were not related to the age of respondents (data not shown).

Survey



Survey

Global conclusion

In our opinion, knowledge about Cholera is fairly good in the population, especially over 30 years old. This is associated with a higher concern about this problematic for people over 30. People are ok with the use of GMO to treat water, especially the ones with a scientific background, which underlines that education is of the essence in the GMO perception by the general public. The survey also provides interesting elements about the design our device, and subsequently, of our global strategy (from GMO use to merchandizing).