



## INTRODUCTION

The recent coronavirus pandemic has left the world in shock and awe. Millions stay at home and can't help but wonder – when will all this end.

The burden of not-knowing cannot be lifted from our shoulders with assurances from any expert out there, any epidemiological model or healthcare publication.

Sometimes we are so touched by the problem and so consumed by the state of ignorance that it poses on us, that we have to find out more about it ourselves – even though we are not epidemiologists and it's not our job to know the facts.

We have to see the numbers, we have to know for ourselves.



## MAIN GOAL

demic has been filled by services, WHO, websites, publishing houses and independent journalist from all over the globe.

Notable efforts are done by https://www.worldome-

This social need to get more information on the pan-

new infections and deaths by the corona virus for all countries in the world.

Another prominent effort is led by John Hopkins University in USA who published an interactive web

dashboard on the Corona pandemic -https://corona-

ters.info/coronavirus/ who publish daily statistics on

virus.jhu.edu/map.html.

When it comes to specific data about Republic of North Macedonia there is a certain void when it comes to interactive visualizations. This is the challenge we took upon ourselves.

**INTERWORKS** 



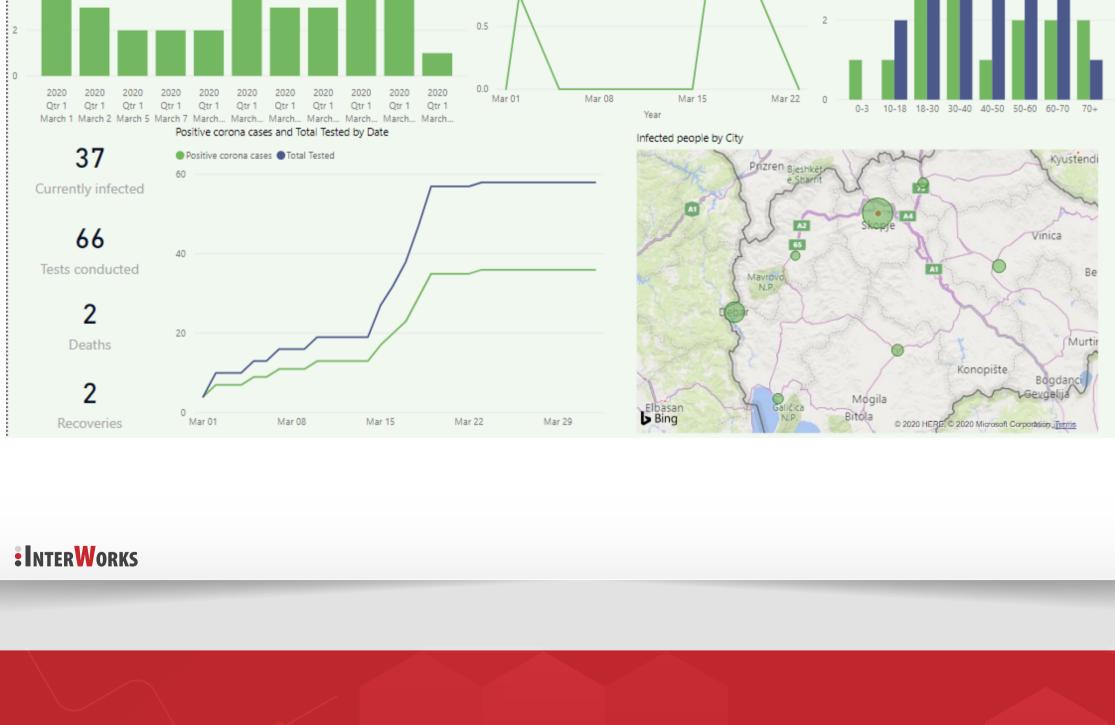
Until recently there was very little effort to do proper

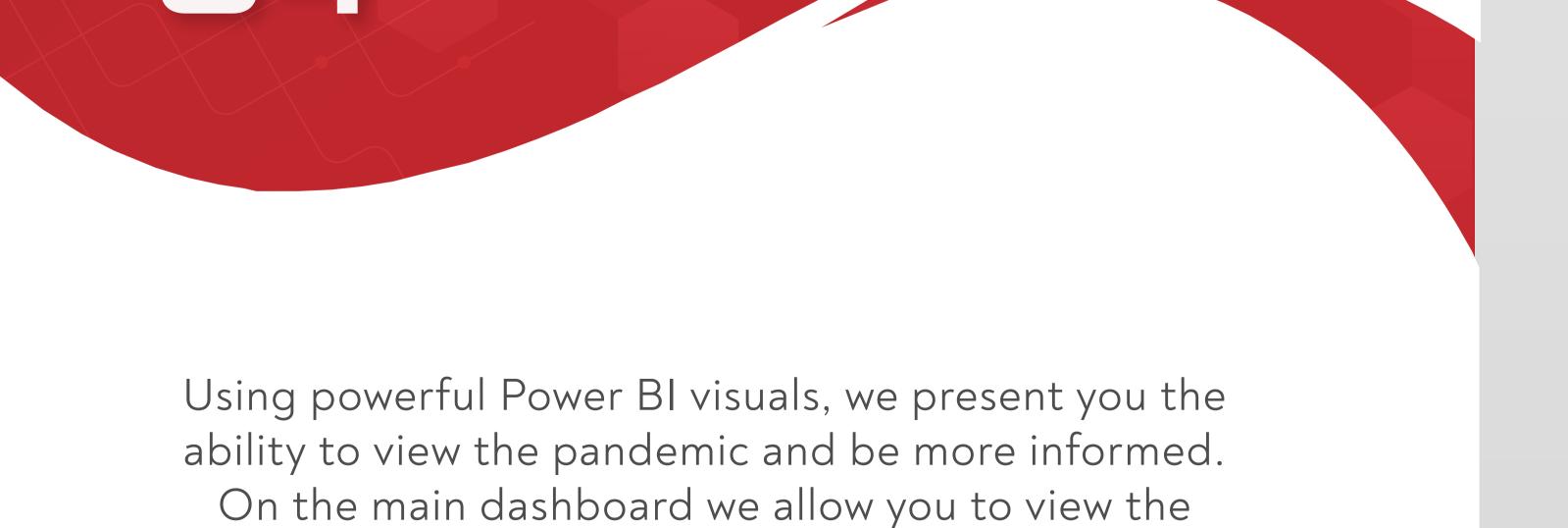
interactive visualizations of the pandemic in North

Macedonia. When we see something like this – we in

data management immediately take up the challenge.

Using somewhat real data on the corona pandemic we built an interactive dashboard to visualize the state of the corona pandemic and its progress and hopefully its demise in North Macedonia.





corona infections in Macedonia by its geographical distribution in cities, by its gender and age structure, by its growth factor as well as its development during time. You can interactively filter by any of these dimensions and view data on the slice of data points you are interested in.

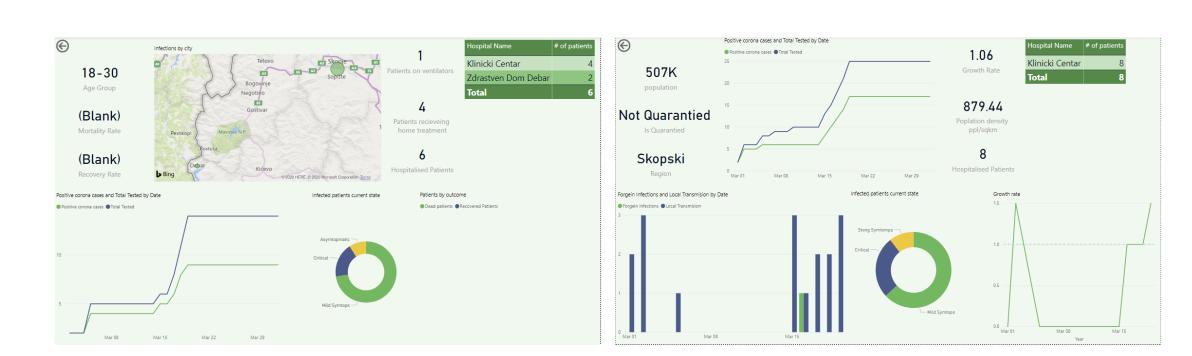
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The next thing that is very important is the ability to extend this functionality further by viewing specialized filtered reports on specific subsets of data. You can drill through the filter of age group and see more detailed statistics for that age group. This extension through drill and functionality when compared to other reports is what makes BI dashboards' possibilities limitless and a much-needed addition to the tool set of anyone working with data – business, NGO or

healthcare alike.

**INTERWORKS** 





Finally, from the main dashboard you can drill-through to the city dashboard where you can view corona statistics for a given city see its growth rate, the number of new infections and various other important data points.

There is a functionality to view hospitalized patients by hospital as well as by the seriousness of the state of the patient.

Growth rate, along with population density and population is also shown here. In addition to this you can see whether the city has been quarantined or not.

:INTERWORKS

## CONCLUSION

Using Power BI, you can build a very detailed and descriptive dashboard for many uses. Writing simple reusable measures at first allows you at a later stage of development to speed up the process significantly by using old components and levering your existing work to move the process forward. Data Analysis Expressions DAX, the language Power BI uses, are more than sufficient for the purpose of making interactive BI dashboards.

With this small endeavor we did not solve the thirst-for-information epidemic in Republic of Macedonia. However, we did demonstrate the ability of Business Intelligence to be used outside business. In addition to this we have shown that proper dashboards and proper visualizations can be created very efficiently using BI tools. This is moving us to creating more complex sample dashboards, leveraging additional tools provided by Microsoft Power BI such as AI visuals which allow you to ask natural language questions to your data and get visual answers back.

To top it all off we might build something that would leverage the other AI visuals in Power BI or use parameters on the dashboards to allow the interested party to ask what if questions and set the playing field himself.

INTERWORKS

