



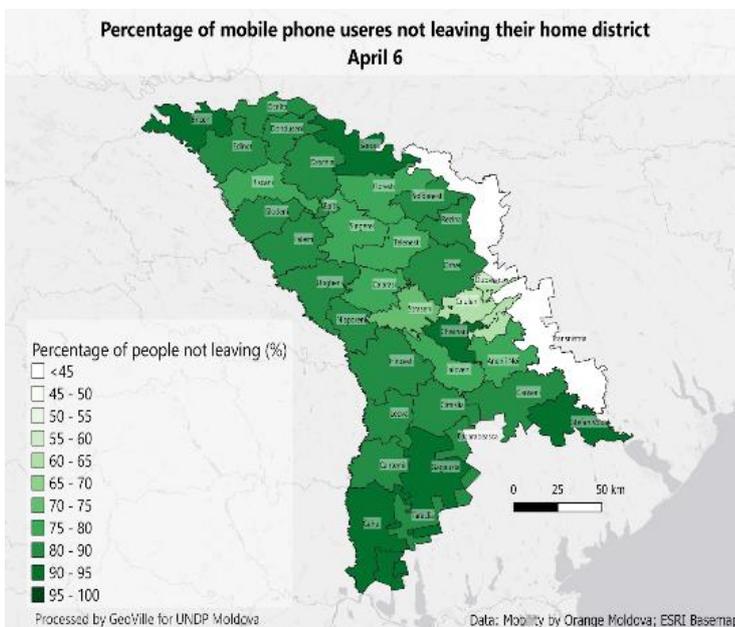
COLLABORATIVE USE OF NEW EVIDENCE TO SUPPORT THE GOVERNMENT OF MOLDOVA'S RESPONSE TO COVID-19 CRISIS

COVID-19 Impact

As COVID-19 hit the Republic of Moldova in spring of 2020, it forced the Government to introduce a set of restrictions and lockdown measures to contain the outbreak. These measures aimed at dealing with a public health crisis with a profound effect on the public life and economic development of the country – changing the way people move around, socialize and go to work.

The virus had a two-fold impact, first of all it showed the existing information and data silos in the public sector that prevented access to crucial insights and evidences to better manage the crisis. Secondly, once the effects of the pandemic have been felt across the society, there was no available data to understand and adequately evaluate the socio-economic impact of this unprecedented modern emergency.

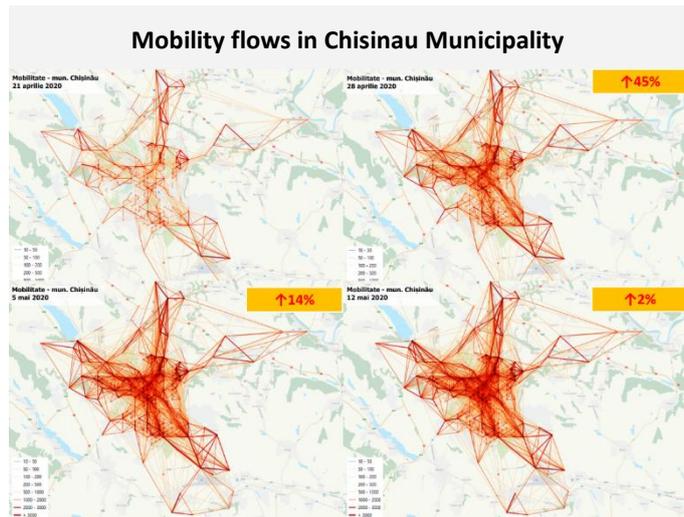
Needs and Challenges



In the initial stages of the crisis, when it was primarily defined as a health crisis, the key challenge for the decision makers was the lack of information to understand how the virus is spreading, what are the risk areas and evaluate the effectiveness of implemented measures. To tackle this challenge, there was a need to look beyond the traditional data. The solution was to tap into data from different sources and thus establish a data collaborative between the public, private and development sector. This data collaboration allowed us to understand citizen mobility and behaviour patterns during the pandemic and share valuable insights with decision makers to evaluate the effectiveness of different restriction measures and how citizens are responding to them. For example, our

analysis shows that since the declaration of national emergency, the mobility in the Chisinau has drastically reduced, staying at a 50-60% rate compared to the reference week. This indicator was used as a proxy to estimate how compliant are citizens with social distancing measures and which public spaces have a rising risk of infection spreading.

In the next stage of the crisis, the Government needs shifted to understanding the larger impact of COVID-19 on society and economies. And once again the necessary data to evaluate the impact was missing, leaving decision makers with guesses rather than evidences. The partnership with private sector showed that data gaps in one area can be covered with big data. Using the existing data platform, we were able to zoom in on areas of interest such as transportation hubs, industrial areas or public spaces to observe how mobility changed over time. It proved to be a reliable method to understand how different areas are recovering after the pandemic. These insights thus could be used to develop a new set of robust indicators to evaluate socio-economic impact of COVID-19.



Way Forward

- In the absence of a contact tracing solutions during the pandemic, mobility analysis is an alternative and less intrusive method to gain an insight about people behaviour during the pandemic and support prevention measures. While mobility analysis using telecom data is not as precise in tracing the spread of the virus, it allows to understand general movement patterns and the probability that people in areas with disease outbreaks will come in contact with new populations.
- Another application of big data is to evaluate socio-economic impact. Mobility analysis in areas of interest such as commercial or industrial areas, public spaces or transportation hubs can serve as an indicator of how quickly and to what extent these areas are recovering after the COVID-19 crisis. Going forward we would like to use more disaggregated data in experimental combination with thick data to derive further insights and support the socio-economic impact assessment effort by UNDP and partners.
- Alongside epidemiological and mobility data, tapping into emergency services data (112 service) is crucial to understand the evolution of pandemic and other crisis in the future. Our analysis show that 112 emergency calls is an early and strong indicator for local COVID-19 outbreak. One of the key advantages of emergency data is timeliness, or in other words how long is the time difference between data capture and the real-world event being captured. Quick access to data allows us to quicker evaluate whenever the pandemic is spreading and react promptly to manage the crisis more effectively.
- The COVID-19 pandemic has highlighted many crucial weaknesses in our socio-political structures affecting societies and economies at their core. Responding to similar crises in the future will require designing better early warning and response mechanisms, leveraging data and technology as well as building new partnership across sectors.

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