

Satellite Data Project to Support Healthcare



Satellite imagery and satellite data have the potential to provide critical health insights. For example, governments use satellite data to map the spread of a disease within a specific location. This information can provide a sense of how effective a health intervention is or where more attention is required to improve that intervention.

In recent years, the COVID-19 pandemic stimulated vast progress in developing satellite-based solutions. For instance, remote sensing was used to assist health policymakers to rapidly identify locations that were at high risk of COVID-19 transmission (Zolli 2020).

The Satellite4Health project, funded by The Malta Council for Science and Technology (MCST) Space Fund Programme, proposed a new tool to improve the management of healthcare services. More specifically, it aims to support hospitals with capacity planning.

The proposed tool will analyse environmental and climatic data obtained from satellite images and datasets from Maltese weather stations. It will proceed to make forecasting predictions surrounding hospital admission rate and patient duration of stay.

The tool can investigate any unexpected changes in admission rate, length of stay and other contributing factors. These factors may pertain to an outbreak or any irregular abnormalities requiring immediate action, including bioterrorism, the adverse effects of certain policies or even the consequences of poor decision-making in hospitals.

Access to such information will assist authorities to readily respond to critical situations to prevent an escalation. It is worth noting that the proposed tools are not set out to target a particular disease but focus on ensuring public health.

This tool will be an asset to healthcare managers and policymakers to improve the healthcare services in Malta. Initially, it will be implemented locally, and if the results are successful, it will expand overseas to help better healthcare organisations abroad.

Overall, satellite imagery and satellite data can now offer new insights into the health and risk factors of a population. Supplied with this information, healthcare providers and authorities can be readily responsive in treating patients.

Source: University of Malta

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