

Spatial Informatics Project Idea

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Title: Finding nearest Covid-19 Booster Vaccine Centers in Hyderabad(GHMC)

Description: Vaccination is the most effective way to prevent spread of the CoVid-19 virus which is causing the current ongoing pandemic. Though the severity of the pandemic has lessened and most of the double-dose vaccines have been administered, a large number of people have evaded the administration of booster doses. The GHMC has now given both private and government hospitals permission to deliver booster doses, but there exists an ambiguity in the location of these hospitals and healthcare centers. The *Aarogya Setu* app which is responsible for showing the nearest vaccination centers is inaccurate and gives results based only on the pincode. This is not guaranteed to give you the best/nearest results since an area with a given pincode extends over a large stretch. Therefore the aim of this project is to find out the nearest vaccination center based on the type of Vaccine (Covaxin and Covishield) for a given particular location. Any user should be able to enter his/her location and name of vaccine and find out the top 3 most nearest vaccination centers near them.

Data: The primary data required for this project as of now would be

Spatial Data:

- GHMC administrative boundary
- The Vaccination Centers details which is made available by the GHMC in their website
- The roads details of Hyderabad, for which there are a few resources online but their credibility is yet to be established

Non-Spatial Data:

- Details about the vaccination center like timings, price, wait time which would have to be done manually by me
- The type of roads, traffic on the road

The questions that can be answered using this project idea would be:

- To find the nearest healthcare facility that is open after 2:00 PM
- Nearest government hospital with least wait time
- Nearest Covishield booster dose center with price less than 500/- rupees

Tentative:

A Tentative idea would be to collect the zone wise division details of GHMC region, about more susceptible populations in those zones and vaccination rates in those zones as per the GHMC details. By visualizing these things along with the presence of vaccination centers, we can see or analyze if the reason for lesser or greater rate of vaccination is the presence of less or more vaccination centers respectively. Or is it the demography of the zone or some other reason that cannot be explained spatially. But this would be feasible if I could get hold of the relevant data.