

# Geographic Information System (GIS) in Evaluating the Accessibility of Healthcare Facility for Patients with Colon and Rectal Carcinoma in the State of Kelantan and Sabah

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**Dear Editor,**

We congratulate the authors as they investigated the distribution of colon and rectal cancer patients and their accessibility to government healthcare facility using spatial analysis in two different states of Malaysia which are Kelantan and Sabah (Harinthiran et al., 2021). Here, we would like to put some points with positive construction.

In this study, a retrospective cross-sectional study design was used. Retrospective study generally occurred in the past using the secondary data available from databases and there are test and control groups. Cross-sectional study is to find out the prevalence of a problem by taking a snapshot or cross-section of the population. In this study, there was only test (patients), and it was not finding out the prevalence. It is better to use the term “descriptive study, historical research” which refers to make use of historical resource like documents, papers, leaflets remain, etc. and to study events of the past, including the philosophy of persons and groups at any point of time (Mishra and Alok, 2017).

It was mentioned a total of 363 and 589 patients from Kelantan and Sabah respectively were recruited into the study. In the reported study, as the conclusive summary dictates that only the records provided by the state health department were used. Authors described the details (address, gender, age, ethnicity, and stage) of “patient with will be collected” from the State health department of Kelantan and Sabah. “These details will be transferred” Microsoft Excel prior to analysis using the GIS software (QGIS and ArcGIS). Authors should pay attention to the tenses and should use the past tense (El-Omar, 2014).

Moreover, the aim of this article was entitled as evaluation of accessibility (of Health care Facility for patients), but it did not mention the requirements to use in the process of evaluation of accessibility. The accessibility needed to be defined to have clear understanding to reach out to the patients (Angkananon et al., 2021). The presentation had evaluated how to follow up assessment of the already diagnosed and discharged patients of hospital using QGIS and ArcGIS platforms sometimes added by Z score value and Buffer analysis. All these did not refer to the sense of evaluation of accessibility because it was an analysis and mapping the patient sites like GPS to visit there for follow up, treatment or palliative help to the patients with advanced CRC. The aim to have early detection remains obscure to apply these platforms QGIS and ArcGIS. It analysed the old, confirmed patients only, not new case detection except screening from expert clinicians.

The presentation described the pretty research processes even including histopathological report and advanced statistics of disease distribution which did not support the accessibility evaluation and there showed no evaluation report about accessibility (Harinthiran et al., 2021). The more tactic to overcome obstacles of accessibility and unveiling the evaluation methods for accessibility would lead to the splendid beneficial outcome to reach or get in touch without delay to the diagnosed patients or obtain early case detection and quality management of the patient. (Like definitive treatment plans or postoperative care and palliative measures).

## References

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