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**GEOGRAPHIC ACCESSIBILITY ANALYSIS OF HOSPITAL FACILITIES
IN THE PROVINCE OF SOUTHERN LEYTE**

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Abstract:

Accessibility Analysis is now becoming a popular tool to assess the physical ability of people to obtain or avail of certain kinds of basic needs and services, such as food, shelter, fuel, education, healthcare, potable water. Its aim is to ensure that infrastructure investments are directed towards the most urgent needs of rural communities. It also guides the user in identifying the physical access needs of households and the most appropriate interventions to reduce present transport burdens. It also provides help and indication of the complimentary measures that are needed so that specific interventions have the greatest possible impact. Accessibility measurements are also a practical tool to assist in the planning of transport improvements, which also depends partly upon the policy and administrative approach to transport planning.

Lack of physical access of the population to goods and services is one of the fundamental constraints in regional development especially in terms of health. Improvement of access to these services could be a major weapon in fighting poverty in the region. Also, the success of programs designed to improve the living conditions of the poor will, to a large extent, depend on the degree of physical access that these people have to facilities and goods provided. This research therefore aims to present a tool that can aid policy makers in identifying the future location of facilities in order to improve accessibility of the populace to such facilities.

This paper aims to investigate the existing accessibility of people in the Province of southern Leyte to the existing health facilities and compare it to that which is being proposed for the province by a foreign study. A thorough investigation of the characteristics of the three main factors affecting accessibility –population, transportation, and health facilities- was considered. Population considers households as the starting point of the analysis while transportation is considered as the means of reaching a certain destination; and the health facilities is viewed as the final destination. For the population data, the number and spatial distribution were considered taking the *barangays* as the basic unit of analysis. For the transport data, the different types of roads and public vehicles were considered. Travel time surveys were also done in order to check the actual time spent by household to reach the facilities. For the health facilities, the different locations, capacities and services being offered and key informant interviews were conducted to determine which facilities are being accessed by the population.

Since there are more than 500 *barangays* connected by transport network, a Geographic information System using ARCVIEW 3.2 was prepared to facilitate the analysis. Isochrone maps showing areas of equal travel time were also made using the GIS data and were used in developing recommendations for the area.

In the end, the accessibility analysis of facilities through the use of GIS and isochrones maps were found out to be very effective and useful in optimizing future strategic locations of hospital facilities in the Province of Southern Leyte.