

Abstract

The highways of a country are considered the backbone of the country's trade. Heavy traffic and faster speed of the vehicles may result in an increased number of fatalities and road accidents. Road Traffic Accidents (RTAs) are a major public health problem. The worldwide incidence of RTAs had caused 1.24 million deaths, 20 to 50 million non-fatal injuries, and many permanent disabilities (WHO, 2013). RTAs ranked as the ninth cause of disability adjusted life years (DALY) lost and they are estimated to rise by a third by 2020 (Ageli et al.,2013)In recent decades, researchers have drawn considerable attention from Emergency Medical Services (EMS) systems at road side. Most of the towns and cities are equipped with medical services in an emergency complement with doctors to provide first aid at right time but the highways are negligible (Gendreau et al., 2006). As there is lack of EMS on Indus Highway that leads to many deaths of precious lives after the sudden dangerous crash of vehicle occur due to different causes. In this regard, a good location of the medical facility will increase the usability of life saving services on the major highways and cities as well. Thus the present study was focused on N55 stretch of National Highway which covered 131.8 kilometers for this study three years of accidents was collected and two types of data was collected 1. spatial data and 2.non-spatial data was collected from police stations by using a snowball method and spatial data was collected by using Google Earth and GPS .This study results showed that total accident during 2018 - 2020 were 476 and 1196 people injured and 120 people died. By using geospatial tool the accident density was analyzed to point out the locations where and emergency medical services can be provided. in result the three locations were pointed out (Khanote, Manjhand , and Aamri(Chhachhar)) where built-in ambulances can be allocated to provide the first aid to accident victims to reduce the mortality ratio and other permanent disability on the stretch of Indus Highway from Jamshoro to Sehwan section.

Keywords: Facilities, Location, Emergency Medical Services, Ambulance Stations Highways, Highways of Pakistan