

# **GIS in Health Management Information System: A case study of Delhi**

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**Introduction:** Geographical Information System (GIS) in a Health Management Information System (HMIS) can be a powerful tool to make health care delivery more effective and far more efficient. In the health sector such information systems are being applied, to fulfill the - often very demanding - reporting requirements of higher institutional levels such as the Ministry of Health.

**Objective:** To examine GIS applications in HMIS and health services planning and management.

**Method and materials:** By keeping in mind the urban sprawl over last 3 decades in Delhi, a geodatabase has been created through various sources viz. Census of India, Directorate of Health Services (DHS), Directorate General of Health Services (DGHS), Municipal Corporation of Delhi (MCD), New Delhi Municipal Council (NDMC), Delhi Cantonment Board and Railways. To examine and understand the interlinkage between demographic characteristics and health, this geodatabase was linked to the following data layers: a) Base Map b) Administrative Boundaries c) Road Network d) Hospitals Locations.

**Findings:** Delhi has multiple health services providing institutions, which overlap in their service areas. Most of the health facilities in Delhi are highly concentrated in the city centre.

**Conclusion:** When health facilities are overlaid on population distribution and density in Delhi, it becomes clear that most of the health facilities are not at the places where they need to be.