A Study on the Distribution of and Equity in Accessibility to Health Facilities in Dhaka (North and South) City Corporation,Bangladesh

BACKGROUND OF THE STUDY

Health is a significant basic needs and a mentionable goal of SDG, ensuring good health is one of the **prime concerns** of any nation. Though Bangladesh has made great strides in increasing healthcare services, decentralization of the facilities, regulation and control of facilities for profit maximization are significant ones which lead to **socioeconomic inequality among healthcare** in Bangladesh (Tashin, 2020). Physical accessibility as well as, **economic accessibility** remains as a major hurdle. Though government is spending substantial amounts of resources on health services, some **challenges** are faced in improving the significant level of health services (Health Policy, 2011; Mannan, 2013). This **pandemic** has showed us the necessity of ensuring accessibility of health facilities to every person. Not having study regarding the distribution and equity of both public and private health care facilities and their accessibility in Dhaka. This study will reflect different scenarios of conventional health system of Dhaka.

OBJECTIVE OF THE STUDY

01 **To explore the distribution of health facilities in Dhaka (North and South) City Corporation**

02 **To study the equity in accessibility to health facilities in study area in terms of population and their socio-economic condition**

METHODOLOGY OF THE STUDY

Title and Objective Selection → **Finalization of Study Area** → **Coordination Schema Preparation** → **Data Collection** → **Data Processing and Analysis**

Data Analysis Method

Objective-1

- **Location Quotient**: $L.Q. = {}^{n_i}/_{p_i} \Big/ {}^{N}/_{P}$ [LQ>1, sufficient; LQ<1, insufficient]
- **Kernel Density**: Illustration of magnitude-per-unit area using ArcGIS

Objective-2

- **Socio-economic Condition**: Graphical & Tabular Representation using MS Excel
- **Road Network**: Spatial Analysis using ArcGIS
- **Population Density**: Kernel and Population Density analysis in ArcGIS

STUDY AREA

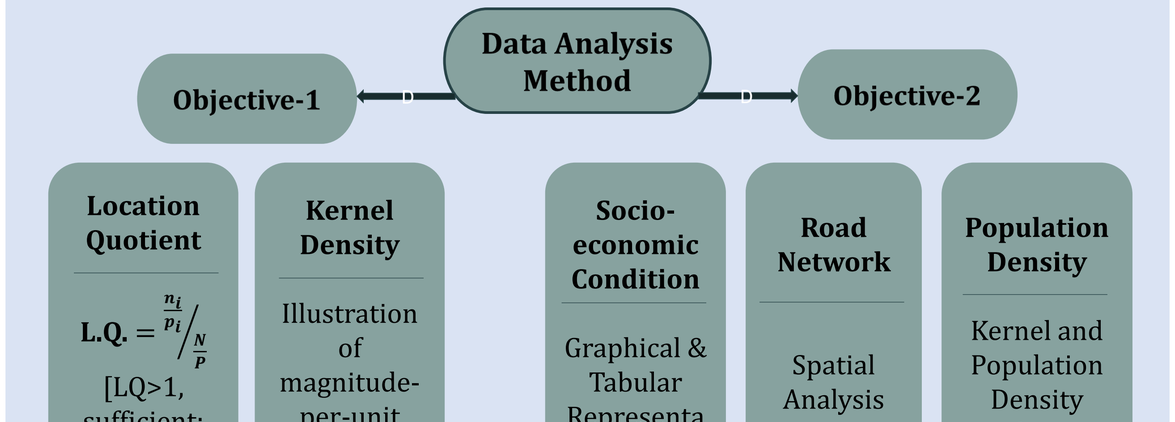


Table 1: Number of health facilities within DCC boundary

	DNCC	DSCC
Public Health facilities	45	21
Private health facilities	302	293
Total	347	314

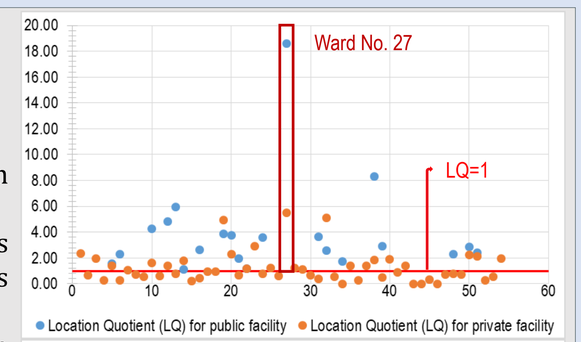
DNCC
- Total Ward- 54
- Area- 185.13
- Population- 8155687

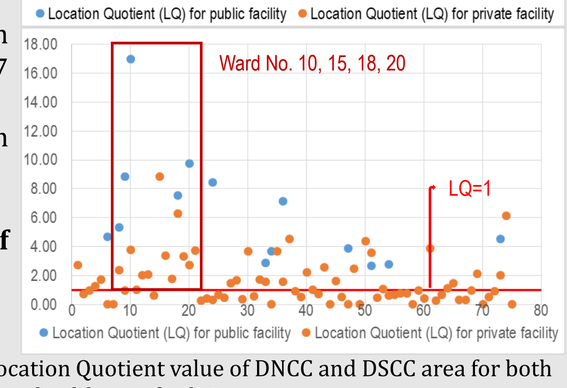
DSCC
- Total Ward- 75
- Area- 102.85
- Population- 4162678

Major Findings

Locational Quotient of health facilities of wards of DNCC and DSCC

- Public facilities are limited to some specific wards both in DNCC and DSCC
- The number of private facilities are much more than public facilities
- Those wards which are having public facilities are over concentrated with them such as ward-8, 9, 10, 18, 20 in DSCC
- Some wards are over saturated with both public and private facilities such as ward- 27 of DNCC
- Most of the wards are lacking of enough private health facilities considering LQ values





Locational Quotient of health facilities of wards of DNCC and DSCC

- In spite of having larger area and population, LQ value of health facilities for DNCC is less than DSCC of total health facilities
- According to the LQ value, DNCC has sufficient public health facilities but is lacking of enough private health facilities while DSCC has shown different results.

Table 2: The Location Quotient value of DNCC and DSCC area for both public and private health care facilities

City corporation	Area Sq.km	Population	No. of Public health facilities	No. of Private health facilities	No. of total health facilities	LQ value	LQ value for public facilities	LQ value for private facilities
DNCC	185.13	8155687	45	302	347	0.7929	1.03	0.77
DSCC	102.85	4162678	21	293	314	1.4058	0.94	1.46

Equity in terms of Socio-economic Condition

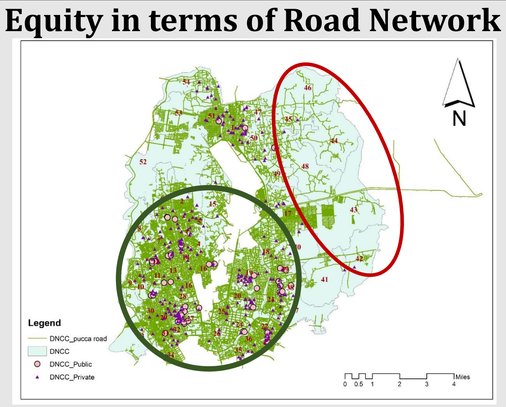
Case-1: Only low-income groups access the public health facilities and moderate- and high-income group access the private health facilities

Case-2 The low- and moderate-income groups access the public health facilities and only high-income group access the private health facilities due to its high expense.

Table 3: Number of available public and private health facilities in DNCC and DSCC

City Corporation	No. of public health facilities per 1 lac low-income people	No. of public health facilities per 1 lac low and moderate income people	No. of private health facilities per 1 lac high and moderate income people	No. of private health facilities per 1 lac high income people
DNCC	1.07	0.65	7.62	24.69
DSCC	0.89	0.58	16.22	54.99

Equity in terms of Road Network

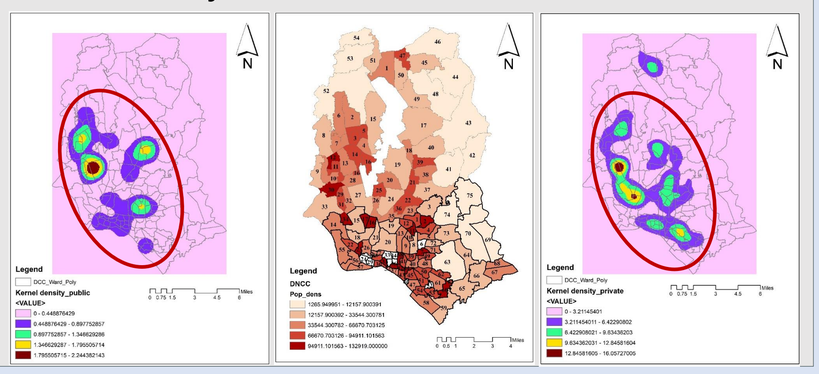


Lack of health facilities in addition with poor road connectivity

Well facilitated area with well road connectivity

Equity in terms of Population Density

Resemblance between the density of health facilities and population both in DNCC and DSCC



Recommendation

- **Institutional governance and local government capacity** to deliver urban health care facilities, especially in deprived zone, should be strengthened in a sustainable way through promoting public–private partnership
- **Ensuring decentralization** of health facilities with effective support of authority
- **Strict regulation regarding building permit** to reduce the disparity of distribution of health facilities
- Provision of proper wide and pucca road around the health services **ensuring geographic accessibility**, especially at emergency situation
- Initiating foreign partnerships such as Japan -Bangladesh Friendship Hospital, Kuwait Bangladesh Friendship Government Hospital by **ensuring affordability and quality of the service.**

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