

Population Growth and Access to Healthcare; an Empirical Study from Ibadan, Nigeria

A Paper at the International Conference on the Impacts and Challenges of
Demographic Changes

22nd – 23rd September, 2016

Paris, France

By

Yemi ADEWOYIN

Dept of Urban and Regional Planning,
Ladoke Akintola University of Technology,
Ogbomoso, Nigeria

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Introduction

- The rapid annual growth of world population and a disproportionate increase in the number of healthcare facilities to support the population's social well-being is one negative impact of demographic transition requiring interventions at both local and global levels
- The health situation in urban centers is characterized by population-induced issues like;
 - pollution
 - inadequate waste disposal system
 - poor sanitation
 - unsafe water for domestic use
 - violence, drug addiction, homicide
 - congestion, overcrowding
 - etcetera etcetera

The Concern

- The health situation in urban centers is thus a source of concern but of greater concern is the capacity of the urban centers to cope with the health challenges of population growth in terms of adequacy and locational distribution of health facilities in the urban centers vis-à-vis the size and spread of urban population

Methods

- The study was situated in the 5 metropolitan Local Government Areas (LGAs) of Ibadan, Oyo State, Nigeria
- Data on population distribution for the LGAs were sourced from the National Population Commission (NPC) while data on the location and distribution of health facilities were collected from the Oyo State Ministry of Health (OYMOH) for the period 1999 to 2014.
- The data were analyzed using simple frequency, ratios, Gini Statistics and Lorenz Curves. Where required, population projections were carried out using the annual growth rates advised by the NPC.

Population Distribution in Ibadan

IBADAN LGAs	1991 Population Figures	1991 Proportion	1999 Projected Pop Figure	2006 Population Figure	2014 Projected Pop Figure	2006 / 2014 Proportion
Ibadan North	302,271	24.60	376,992	306,795	394,722	22.92
Ibadan North-East	275,627	22.43	343,762	330,399	425,091	24.68
Ibadan North-West	147,918	12.04	184,483	152,834	196,636	11.42
Ibadan South-East	225,800	18.38	281,618	266,046	342,295	19.87
Ibadan South-West	277,047	22.55	345,533	282,533	363,574	21.11
Total	1,228,663	100.00	1,532,388	1,338,607	1,722,318	100.00

Population Growth Trend

- The population figures increased progressively until the year 2006 before they declined slightly.
- The fluctuations may be attributed to over estimation of the growth rate between 1991 and 1996, under-estimation of incidences of mortality and out-migration, or counting errors.
- The trend shows a positive correlation ($r = 0.71$) indicating that over the years, the population of the study area increased substantially.



Distribution of Health Facilities

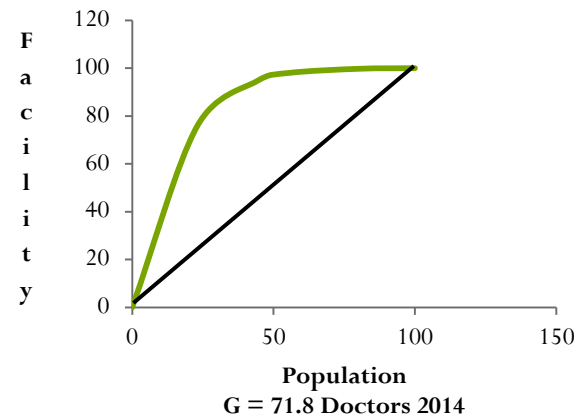
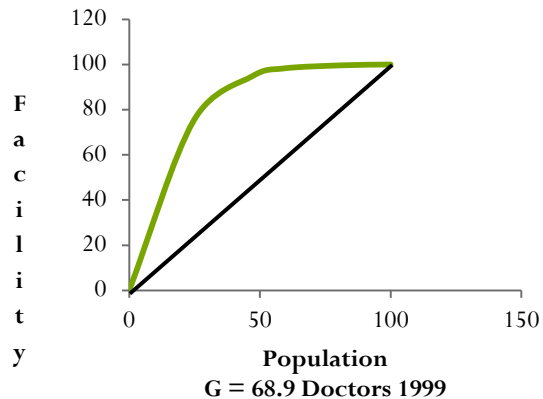
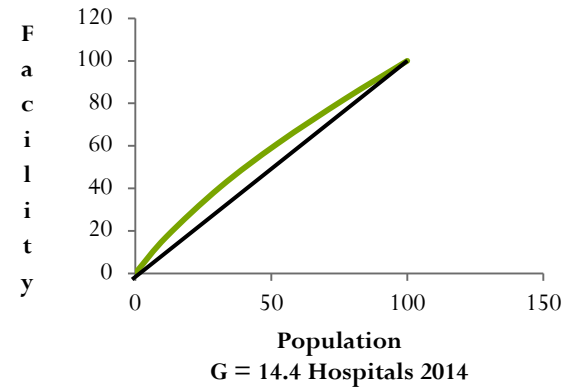
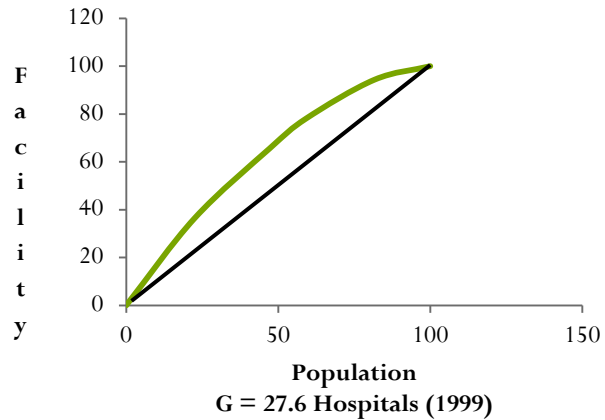
- There were 438 hospitals in 1999 with about 85% of these privately provided.
- Ibadan South-West had the highest proportion of the privately provided facilities (37%)
- Ibadan North had the highest number of government hospitals and doctors
- After 16 years, private hospitals had declined to 103 while government hospitals had grown to 103.

Year	1999	2014	1999	2014	1999	2014	1999	2014	1999	2014
LGAS	Teaching Hospital		State / General Hospital		Pry Health Center / Clinic		Private Hospital		Public Doctor	
Ibadan N	1	2	1		19	19	108	16	219	304
Ibadan NE			2	2	5	24	61	21	4	7
Ibadan NW			1	1	8	14	47	19	10	14
Ibadan SE					7	16	21	28	1	1
Ibadan SW			4	4	16	21	137	19	58	76
Total	1	2	8	7	55	94	374	103	292	402

Ratios of Access to Facilities

LGAS	Hospital : Pop Ratio 1999	Hospital : Pop Ratio 2014	Doctor : Pop Ratio 1999	Doctor : Pop Ratio 2014
Ibadan North	1 : 657	1 : 3,317	1 : 1,721	1 : 1,298
Ibadan NE	1 : 1,074	1 : 3,058	1 : 85,941	1 : 60,727
Ibadan NW	1 : 744	1 : 1,725	1 : 18,448	1 : 14,045
Ibadan SE	1 : 2,514	1 : 2,194	1 : 281,618	1 : 342,295
Ibadan SW	1 : 479	1 : 2,673	1 : 5,957	1 : 4,784

Degrees of Health Facilities Inequality



Summary of Findings

- The number of hospitals in the study area decreased by almost 50% between 1999 and 2014 whereas population increased by 12% within the same period thus reducing the population's access to the hospitals.
- The number of doctors increased from 292 to 402 in the 16-year period translating to a 38% growth thereby reducing doctor to population ratio reduced slightly in all the LGAs except in Ibadan South-East where one doctor served 350,000 people.
- Inequality in the distribution of doctors widened during the period and there was a reduction in the degree of inequality in the distribution of hospitals during the same period.
- In essence, population growth and its distribution impacts access to healthcare as it has implications for both the number of persons per facility and the degree of inequality in the distribution of the facilities.

Conclusion

- With the negative health implications of population growth, access to healthcare should be a planning priority to ensure that as the population of the urban center grows, access is not reduced or constrained but rather enhanced.
- In enhancing access cognizance should be taken of the existing spatial distribution of healthcare facilities vis-à-vis the distribution of the population to be served because while the location of health facilities, existing and proposed can be controlled and planned for, same cannot be said of population growth and its spread over space.

Thank you.