



Examining Inequality In Health Status And Expenditure Among Elderly In Kerala: A Multidimensional Analysis

Dr. Shijo Philip

Abstract

This research investigates the inequality in health status and healthcare expenditure among elderly Syrian Christians in Kerala, India, focusing on various demographic and socioeconomic factors. Using the Gini coefficient, the study examines the distribution patterns of health indices and healthcare spending across different denominations, regions, living statuses, places of residence, and income groups. At the aggregate level, while the inequality in health status among the elderly is relatively low, significant disparities exist in healthcare expenditure, particularly in environmental, mental, and social health expenditures. Community-wise analysis reveals variations in expenditure distribution across different types of healthcare, suggesting the need for targeted interventions. Regionally, the Malabar area stands out with the lowest health status and highest inequality, emphasizing the necessity for enhanced healthcare programs in this region. Additionally, disparities in healthcare expenditure are pronounced in urban-rural divides, with rural elderly facing higher inequality and lower expenditure compared to their urban counterparts. Furthermore, income disparities contribute significantly to inequality in healthcare expenditure, with those below average income experiencing higher disparities. This underscores the urgency for increased healthcare spending targeting low-income elderly populations. Overall, this study highlights the nuanced inequalities in health status and healthcare expenditure among elderly Syrian Christians in Kerala, providing valuable insights for policymakers to formulate targeted interventions to improve healthcare accessibility and equity for this demographic.

Key words: elderly, ageing, inequality, Gini coefficient

Introduction

Health disparities persist as a global challenge, with socio-economic factors often exacerbating inequities in healthcare access and outcomes. Within this context, the elderly population stands particularly vulnerable, facing unique health needs coupled with potential financial constraints. In Kerala, India, where the Syrian Christian community represents a significant demographic, understanding the nuances of healthcare distribution among its elderly members is crucial for informed policy formulation. In the pursuit of equitable healthcare provision, understanding the dynamics of health status and healthcare expenditure among specific demographic groups is paramount. This research delves into the intricate interplay between health status and healthcare spending among elderly Syrian Christians in Kerala, India. By employing the Gini coefficient—a measure of inequality—this study aims to illuminate the distribution patterns of health-related resources and identify areas necessitating targeted policy interventions.

Objectives

1. To analyze the health status of elderly Syrian Christians in Kerala across different denominations, regions, living statuses, and income groups, focusing on prevalent health conditions, access to healthcare services, and health outcomes.
2. To examine the patterns of healthcare expenditure among elderly Syrian Christians in Kerala, disaggregated by denominations, regions, living statuses, and income groups, aiming to identify disparities in healthcare spending and understand the factors influencing differential access to healthcare services and resources.

Methodology

Utilizing primary survey data, the study employs the Gini coefficient to quantify the degree of inequality in both aggregate health status and healthcare expenditure among the elderly Syrian Christian population. By analyzing these metrics across multiple dimensions, including physical, mental, social, and environmental health expenditures, the research offers a comprehensive view of the distributional patterns within this demographic cohort.

Inequality of health status and health care expenditure

The health status of a particular segment is influenced not only by the absolute level of health care expenditure but also by its distribution pattern within the segment. The level of skewed distribution of health care expenditure among various socio-economic groups provides an insight on areas which require special focus for policy intervention in future. In the following paragraph, the Gini inequality coefficient is estimated for aggregate health status and various dimensions of health care expenditure for evaluating the existing skewed status of the same variables within the Syrian Christian elderly in Kerala.

Inequality status of health and health care expenditure at aggregate level

Table: 1 show the value of Gini coefficient of elderly Syrian Christian with respect to aggregate health status and various components of health care expenditure. The value of Gini coefficient ranges between zero and one. The value 'one' indicates the existence perfect inequality and the value 'zero' indicates the perfect symmetry in the distribution of the variable. As shown in the Table, the value of inequality coefficient is just 0.38, indicates the low level of disparity in the distribution of health indices among the selected elderly. At the same time, with respect to health care expenditure, the size of inequality is significant as the value of Gini coefficient of monthly expenditure of all dimensions of health care expenditure is more than 0.5. Among the various types of health expenditure, highest inequality is found in the case of spending on environmental health followed by mental and social health expenditure. However, the value of inequality coefficient is not very high also. The lowest inequality coefficient is for physical health expenditure. As the expenditure on physical health care is compulsive in nature, all sections of elderly are compelled spent at least a minimum amount for promoting physical wellbeing. This might be the reason behind the low inequality status of physical health expenditure.

Table:1 Gini Coefficient of inequality among elderly Syrian Christians in Kerala

	Aggregate health index	Aggregate health expenditure	Physical health expenditure	Mental health expenditure	Social health expenditure	Environmental health expenditure
Gini Coefficient value	0.380	0.560	0.626	0.673	0.658	0.688

Source: Primary Survey

Inequality status of health and health care expenditure among various denominationS

Table: 2 show the inequality status of health and health care expenditure among various denominations of Syrian Christian elderly. In the case of health status, the inequality is highest among Marthomites and Syro Malabar Catholic community, though it is not very significant. This indicates that the Marthomite community not only registers a highest health status, they also witness a highest inequality as compared to other denominations. In the case of aggregate health expenditure, the highest inequality is found within Syro Malabar Catholic and Syro Malankara denomination and lowest with Jacobite and Marthomites. In the case of physical health care expenditure also, inequality is highest among Syro Malabar Catholic. Orthodox and Marthomite community have highest inequality in the case of mental health expenditure. While Syro Malabar scored a highest inequality with respect to social health expenditure, the Marthomite community has lowest inequality in the same parameter. In the case of Environmental health expenditure also Marthomite community has lowest inequality. Thus, it is inferred that community wise there exist a difference in the distribution pattern of expenditure of health

care expenditure and this distribution pattern by community wise varies across type of health expenditure.

Table: 2 Gini Coefficient of inequality among elderly Syrian Christians by denomination

Denomination	Aggregate health index	Aggregate health expenditure	Physical health expenditure	Mental health expenditure	Social health expenditure	Environmental health expenditure
Syro Malabar Catholic	0.383	0.567	0.662	0.635	0.702	0.661
Jacobite	0.368	0.487	0.536	0.626	0.592	0.722
Orthodox	0.381	0.505	0.520	0.675	0.630	0.665
Marthomite	0.389	0.498	0.542	0.675	0.539	0.469
Syro Malankara	0.369	0.578	0.617	0.613	0.604	0.755
Aggregate level	0.380	0.560	0.626	0.673	0.658	0.688

Source: Primary Survey

Inequality status of health and health care expenditure of elderly across region

Table:3 show the inequality coefficient of health status and health care expenditure across regions in Kerala. In the case of aggregate health status, inequality is highest among elderly population belonging Malabar regions and lowest with Travancore region. In this case, Malabar region recorded a lowest health status along with a highest inequality among elderly people. This highlights the need of special care for health care programmes of elderly population in Malabar region in Kerala. In the case of Aggregate health care expenditure and other dimensions of health care expenditure, the highest inequality is found with Cochin and Travancore regions. However, these regions also recorded a highest mean health care expenditure. But at the same time, the inequality of health care expenditure is lowest for Malabar region along with lowest average expenditure on health care. This implies that the low status in health expenditure of elderly in Malabar region is almost uniformly distributed cutting across community denomination and other parameters. The simultaneous existence of high inequality in health status along with low health care expenditure (with less inequality) signals the urgency for raising the health care expenditure of elderly in Malabar region to keep pace with elders in other regions.

Table:3 Gini Coefficient of inequality among elderly Syrian Christians by region

Region	Aggregate health index	Aggregate health expenditure	Physical health expenditure	Mental health expenditure	Social health expenditure	Environmental health expenditure
Travancore	0.358	0.561	0.598	0.709	0.606	0.681
Cochin	0.385	0.565	0.562	0.644	0.706	0.695
Malabar	0.409	0.493	0.558	0.582	0.533	0.654

Source: Primary Survey

Inequality status of health and health care expenditure of elderly by living status

Table: 4 reveal the inequality coefficient of elderly among various living status groups. The inequality of health status is very high among the divorced group as compared to others. The same group also recorded a lowest health status. However, the inequality of health care expenditure is lowest among the divorced group. The pattern of health care expenditure among divorced elderly is almost uniform. Inequality index for all dimension of health expenditure is highest among unmarried and widowed elderly. These groups of people normally experience the highest social alienation and marginalization in their old age and this might result into highest skewed health care expenditure among them.

Table:4 Gini Coefficient of inequality among elderly Syrian Christians by living status

Living Status	Aggregate health index	Aggregate health expenditure	Physical health expenditure	Mental health expenditure	Social health expenditure	Environmental health expenditure
Currently married	0.367	0.548	0.627	0.658	0.647	0.661
Unmarried	0.304	0.691	0.685	0.685	0.780	0.797
Divorced	0.527	0.449	0.297	0.534	0.595	0.575
Widowed	0.345	0.568	0.618	0.678	0.630	0.763

Source: Primary Survey

Inequality status of health and health care expenditure of elderly by place of residence

Table: 5 show the inequality index in health and health care expenditure between rural and urban areas. As shown in the Table, the inequality is highest in rural areas for health status as well as health care expenditure. The elderly in urban areas not only enjoy a higher level in health and health care expenditure status but also experience a low inequality with these items. This implies a better position enjoyed by urban elderly as compared to their counterparts in rural areas. As compared to urban areas, the elderly in rural areas required additional care and attention.

Table: 5 Gini Coefficient of inequality among elderly Syrian Christians by place of residence

	Aggregate health index	Aggregate health expenditure	Physical health expenditure	Mental health expenditure	Social health expenditure	Environmental health expenditure
Rural	0.387	0.601	0.644	0.694	0.687	0.713
Urban	0.353	0.413	0.559	0.599	0.545	0.602

Source: Primary Survey

Inequality status of health and health care expenditure of elderly by income

Table: 6 summarize inequality status of elderly across different groups of personal and family income. In the case of both personal and family income, the inequality for health and health care expenditure is lowest for those whose income is higher than the mean value. The pattern is same with all types of health care expenditure. This entails the warning signal for the need for immediate and speedy attention for enhancing the health care expenditure for elderly with low income.

Table: 6 Gini Coefficient of inequality among elderly Syrian Christians by income

	Aggregate health index	Aggregate health expenditure	Physical health expenditure	Mental health expenditure	Social health expenditure	Environmental health expenditure
Personal income						
Group1 (below average income)	0.386	0.500	0.606	0.596	0.594	0.688
Group 2 (above average income)	0.355	0.486	0.586	0.592	0.579	0.598
Family income						
Group1 (below average income)	0.387	0.559	0.624	0.658	0.684	0.707
Group 2 (above average income)	0.349	0.494	0.584	0.644	0.538	0.591

Source: Primary Survey

Summary:

This research investigates the inequality in health status and health care expenditure among elderly Syrian Christians in Kerala across various demographic and socioeconomic dimensions. The study employs the Gini coefficient to measure inequality, considering aggregate health status, health care expenditure, and its components.

Key Findings:

1. Aggregate health status shows relatively low inequality (Gini coefficient: 0.380), indicating a fairly balanced distribution of health indices among the elderly population.
2. However, disparities are significant in health care expenditure, with Gini coefficients for various dimensions exceeding 0.5, indicating substantial inequality.

3. Inequality varies across denominations, regions, living status, place of residence, and income levels, highlighting complex patterns of disparities within the elderly Syrian Christian community.
4. Marthomites generally exhibit lower inequality in health care expenditure compared to other denominations.
5. Malabar region shows the highest inequality in health status but the lowest in health care expenditure, suggesting a need for targeted interventions in this region.
6. Divorced individuals experience high inequality in health status but low inequality in health care expenditure, while widowed and unmarried individuals face significant disparities in both.
7. Rural areas exhibit higher inequality in health status and health care expenditure compared to urban areas.
8. Low-income groups face higher inequality in health and health care expenditure compared to those with above-average incomes.

Conclusion: The study underscores the importance of addressing inequality in health care expenditure among elderly Syrian Christians in Kerala. While aggregate health status shows relatively low inequality, disparities in health care expenditure are significant across various dimensions and demographic groups. To promote equitable access to healthcare, targeted policies and interventions are necessary, considering the specific needs and challenges faced by different denominations, regions, living statuses, places of residence, and income groups within the elderly population.

Policy Suggestions:

1. Targeted Healthcare Programs: Develop targeted healthcare programs focusing on vulnerable groups with high inequality in health status and expenditure, such as divorced, widowed, and unmarried individuals, and those in rural areas.
2. Regional Interventions: Implement region-specific interventions to address the unique challenges and disparities observed in different regions, especially in areas with high inequality in health status and low healthcare expenditure.
3. Income-Based Support: Provide financial support and subsidies for low-income elderly individuals to enhance their access to healthcare services and reduce inequality in health expenditure.
4. Community Engagement: Engage local communities, religious institutions, and NGOs to promote health awareness and facilitate access to healthcare services, especially among marginalized groups.

5. Infrastructure Development: Invest in healthcare infrastructure and facilities, particularly in regions with high inequality in health status and expenditure, to improve accessibility and quality of healthcare services.
6. Education and Awareness: Conduct educational campaigns to raise awareness about the importance of healthcare expenditure and preventive measures, targeting both elderly individuals and their caregivers.
7. Data Monitoring and Evaluation: Establish a robust monitoring and evaluation system to track the effectiveness of policies and interventions in reducing inequality in health status and expenditure among the elderly population.

By implementing these policy suggestions, policymakers can work towards ensuring equitable access to healthcare services and improving the overall health outcomes of elderly Syrian Christians in Kerala, setting a precedent for addressing similar issues in other communities globally.

Reference

1. Alejandro R. Jadad and Laura O'Grady (2008): "How Should Health Be Defined?" British Medical Journal, Vol. 337, pp 1363-1364 <http://www.jstor.org/stable/20511543> (Accessed on 04 May 2018)
2. Bond J, Coleman P, Peace S, (eds) (1993): Ageing in society: an introduction to social gerontology, Sage, New Delhi
3. Steves CJ, Spector TD, Jackson SH (2012): Ageing, genes, environment and epigenetics: what twin studies tell us now, and in the future? Age Ageing. Sep;41(5):581–6.doi: <http://dx.doi.org/10.1093/ageing/afs097> PMID: 22826292 (Accessed on 21 January 2018)
4. UNFPA (2013): Building a Knowledge Base on Population Ageing in India, The Status of Elderly in Kerala, New Delhi
5. UNFPA (2017): Caring for Our Elders: Early Responses India Ageing Report – 2017, United Nations Population Fund, New Delhi
6. World Health Organization (1947): The constitution of the World Health Organization. WHO Chronicle <http://www.who.int>(Accessed on 06 January 2019)
7. World Health Organization (2015): 'World Health Report on Ageing and Health in <http://www.who.int>(Accessed on 08 January 2019)
8. Zachariah,K.C (2017): Changing Kerala: Population Growth & Economic Development of Religious Denominations, Red Ink, Kochi