

A comparative study of urban and rural aging systems in China

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Abstract. The paper contrasts the urban elderly care system and the rural geriatric care system in China and evaluates the differences concerning the quality of life of the elderly. The study shows that elderly care facilities in urban areas are more developed. There is greater involvement from the government and a variety of community care services whereas in the rural facilities' elderly population relies predominantly on family care and insufficient skilled nursing and medical facilities. Employed both qualitative and quantitative methods, this paper explains disparities in resource allocation, service provision, and policy implementation between urban and rural areas of China and provides recommendations to enhance elder care in the rural regions of China. The research also recognizes other countries experience and it utilizes resource dependency and social equity theory to explain and enhance equality-based policies in the provision of elder care.

Keywords: Social Equity, Resource Dependence Theory, Public Policy.

1. Introduction

While the elderly population increases globally, nations worldwide are experiencing significant difficulties in providing proper care for the elderly. This challenge is, however, made worse by the continually emerging divide in the availability and quality of elderly care services between the urban and rural areas. Sensitization to the family-based care systems in rural areas is comparatively lower, with much less support from the community and the government than those in the urban areas, which are generally better endowed and provide a more comprehensive and enhanced range of services. The implications of these differences in elderly care systems are especially worrying, especially given that China's population is ageing rapidly, and significant socio-economic differences exist between urban and rural areas.

The problem is especially so in China, where the elderly population is one of the largest in the world. According to the data of the National Bureau of Statistics, by 2050, China's elderly care population (people over 60 years old) will be up to 480 million, occupying one-third of the entire population ("Summary of the Comparative Study of the "urban and rural elderly" Care Service System, 2024"). In urban areas, elderly care has experienced some changes in the recent past, with an emphasis on the provision of more community daycare facilities and home care services. The elderly care services in urban areas have been developed through integrated services initiated by the government and market services, showing a higher service coverage and differentiation degree [1]. Rural elderly care, on the other hand, continues to rely heavily on families and has minimal support from governmental and community organizations. Hence, there is a shortage of adequate and quality care services. The elderly care facilities have remained relatively underdeveloped in rural areas, which only adds to the problem of social exclusion and vulnerability to health complications among older adults in such settings [2].

The rural elderly are more vulnerable because they have poor access to health care, lack social support and money problems. They often rely on relatives experiencing financial problems or cannot spend time with the elders because of their jobs [3]. It is worse for such older adults because of the insufficient and unorganized care services, making them experience loneliness, depression and declining health [4]. On the other hand, the elderly who resided in urban settings received more attention concerning their health care, social relations and various community support services that enhance their satisfaction and well-being compared to their counterparts in rural areas [5].

This paper aims to compare and contrast the “urban and rural elderly” care systems in China, and this will be done using both qualitative and quantitative research. It will provide insight into how these regions allocate resources, the methods used in delivering services, and how policies affect the elderly across these regions. Furthermore, this paper will include foreign experiences and literature, including Resource Dependence Theory and Social Equity Theory, as the theoretical framework for recommending policies that enhance China’s elderly care, especially in the rural sector.

2. Literature Review

2.1. Differences in “urban and rural elderly” Care Systems

The inequality in “urban and rural elderly” care is a phenomenon that is apparent in almost all countries across the globe; however, it is more evident in China, having experienced rapid urbanization besides the increasing elderly care needs. Elderly care services are relatively more developed in urban areas with a wide range of community-based and home care services that are either partially funded by government subsidies or fully funded by the private sector. As a result, the urban elderly enjoy better health services, specialized services and extensive governmental care [1]. On the other hand, rural elderly persons mainly depend on their families for care since there are few facilities like nursing homes or adequate medical facilities to cater for them; there is a significant disparity between the quality of life between the elderly in the rural and urban areas.

Studies have suggested that the elderly in urban areas are more privileged in diversified and improved care services, including medical, social, and professional care services. The urban care systems benefit from more resource support, infrastructure development and an improved active private sector, according to Jin et al. [6]. Rural elderly care, however, is yet to develop, and most of the elderly in rural areas are usually cared for by their direct families. The current system of elderly care in rural areas is a problem because it has weaknesses, such as; there are limited opportunities available for the elderly to access formal care services, professional caregivers, and poor governmental policies that do not cater for the needs of the rural elderly [7]. Moreover, most of these areas are economically disadvantaged, meaning minimal funds will be available to cater to the needs of the elderly [3].

However, it is essential to note that China is not only characterized by having more people in urban areas than rural areas. Similar tendencies can be seen in other countries, where the urban environment is attributed to more professionalization of care services than the rural area focusing on informal care systems [8]. The following information is evident from the existing literature and research studies regarding the rural elderly in Western countries, especially the United States. It has been observed that the elderly in the rural areas are more socially isolated, more often clinically depressed and suffer from more chronic conditions that are untreated as compared to the urban elderly [9]. There are also inadequate health facilities, especially in rural areas, and few qualified caregivers, which leads to ill health among the elderly in rural areas. This trend is also observed in China as the elderly from rural areas are more likely to be socially isolated and have little access to health and social care; hence, they are likely to be depressed and less satisfied with their lives [2].

2.2. Elderly Care Quality Evaluation

Therefore, there is a need to evaluate the quality of the elderly care services to decipher how much of these systems address the needs of the elderly. Some models have been applied to assess the quality of care with much focus on the effectiveness of the service delivery, improvements in the quality of life of the elders, and their level of satisfaction. Regarding care services, they can be even more regularized in urban environments; it is possible to have some meaningful indicators of the quality of services, including the professional degrees of care, the productivity of services and the satisfaction of the inhabitants[6]. Such assessments often focus on the enhanced satisfaction of the older people staying in urban zones, who are provided with broader and more accurate services [2].

However, the care quality evaluation method is much more complicated in rural areas. The absence of professionalized child care and the focus on the family-based care system makes it impossible to have many quantitative measurements of the quality of care. The care of older people is not frequent in rural regions, and the services provided are not standardized, making it hard to assess the effectiveness of the services [10]. This also means that there is no well-defined pattern of care service that is provided to the rural elderly as they have even limited access to care for their chronic health issues and mental health [2].

Worldwide, the standard of elderly care has been assessed by benchmarks such as Borowiak's with aspects such as policy, funding, and involvement, among others [11]. However, these models must be adapted to the national socio-economic context and often do not fit the rural areas due to the underdevelopment of institutions in many countries [8]. For instance, there is a scarcity of healthcare human capital that warrants poor healthcare for elderly persons in rural China, resulting in complications from chronic diseases such as diabetes and hypertension [12]. This has created a need for a new evaluation foundation that focuses on access, cost, and use of family- and community-based support systems [3].

The remnants of the policy differences between the elderly care systems in the urban and country areas are evident. The Chinese government has mainly identified the above gaps through the "Opinions on Accelerating the Development of Elderly Care Services" to achieve a fair distribution of elderly care between urban and rural areas [1]. However, providing these policies is complex in terms of resource and institutional support in rural areas ("Summary of the Comparative Study of the "urban and rural elderly" Care Service System, 2024").

In rural areas, the government has encouraged family care since it is cheaper than having proper care facilities [10]. However, this approach is not significantly without its shortcomings when the conventional family structures change and few family members are in a position to care for the elderly. Hence, this leaves young people in other regions, and the rural elderly need care they cannot get [4].

On the other hand, urban elderly care facilities have been responded to with relatively more effective government policies which supply financial support for elder care services and encourage the establishment of community-based ones [5]. Hence, if China can learn from the best practices of other countries like Japan and the United States, the country can design better policies that will enhance the welfare of older people, whether in urban or countryside settings. In particular, measures such as the enhancement of community and family care systems and the improvement of financial input to rural healthcare facilities are crucial for solving the problem of the imbalance between "urban and rural elderly" care [13].

3. Research Questions

3.1. What are the primary differences between urban and rural elderly care systems?

The care systems for older people in urban and rural areas differ because the non-medical aspects of health care reflect social, economic, and physical arrangements. The aged care structures developed in the urban setting are enhanced by infrastructure, access to health care services, and policies. While the former has adequate facilities to support such patients, who act mainly through family, the latter rarely has these facilities altogether, and they rely solely on family-based care, which has minimal financial backing from the government financially [14]. By answering this research question, it will be possible to compare the resource availability, healthcare, and quality of elderly care within urban and rural areas to evaluate the chief issues affecting elderly persons in different contexts.

3.2. How do these differences impact older people's quality of life and satisfaction?

Differences between urban and rural care services provided to older people significantly affect the quality of life and satisfaction of elderly individuals. In most cases, urban elderly are happier and healthier because they can access better healthcare, social support, and professional caregivers, as

found by [6]. The rural elderly, in contrast, suffer from social loneliness, inadequate medical attendance, and financial problems, which reduce their quality of life and human welfare [15, 16].

3.3. How do policy support, resource allocation, and service delivery contribute to these disparities?

Elderly care systems are squarely dependent on policy support, resource allocation, and service delivery, which are inherent to the quality-of-service provision. Urban centers enjoy the resultant fair policies formulated for elders' adequate care services, exemplary resource provision, and the proper working service delivery channels [17]. However, it still has many problems, mainly including policy support, financial input, and inadequate service models in rural areas, leading to a relative decline in the quality of care and regional disparities in elderly care services [18]. Knowledge of these factors will help explain the differences in elderly care beneficiaries across urban and rural areas.

4. Research Methodology

4.1. Mixed-Method Approach (Qualitative and Quantitative Analysis)

This research incorporates both qualitative and quantitative data collection and analysis techniques to address the comparative study of urban and rural elderly care systems. By employing this mixed-method approach, the research aims to gather actual numbers regarding healthcare resources utilized while also capturing the qualitative experiences of elderly individuals.

Literature Review: The literature review provides the theoretical framework for comparing urban and rural elderly care systems based on the previous literature on resources, services, and policies. Research reveals that the elderly health care services in urban centers are relatively better than those in rural areas due to improved facilities and support from the government. For example, urban regions have 15 care establishments for every one thousand elderly residents, compared to 5 in rural areas. Besides, annually, \$4500 of government support per elder in the urban area as opposed to \$1800 in the rural regions [14].

Comparative Analysis: To understand how resource mobilization, service provision, and policies vary between urban and rural contexts, a cross-sectional comparative analysis will be used. Caring for the elderly in urban areas often comprises community and home care services financed mainly by government and private entities [6]. On the other hand, elderly care in rural regions depends on family members and has restricted access to professional careers and hospitals [16]. This trend is seen worldwide, where formal care services are available in urban areas while informal care is available in rural areas [8].

The figure below compares the number of care facilities and average government subsidies for elderly care in urban and rural areas.

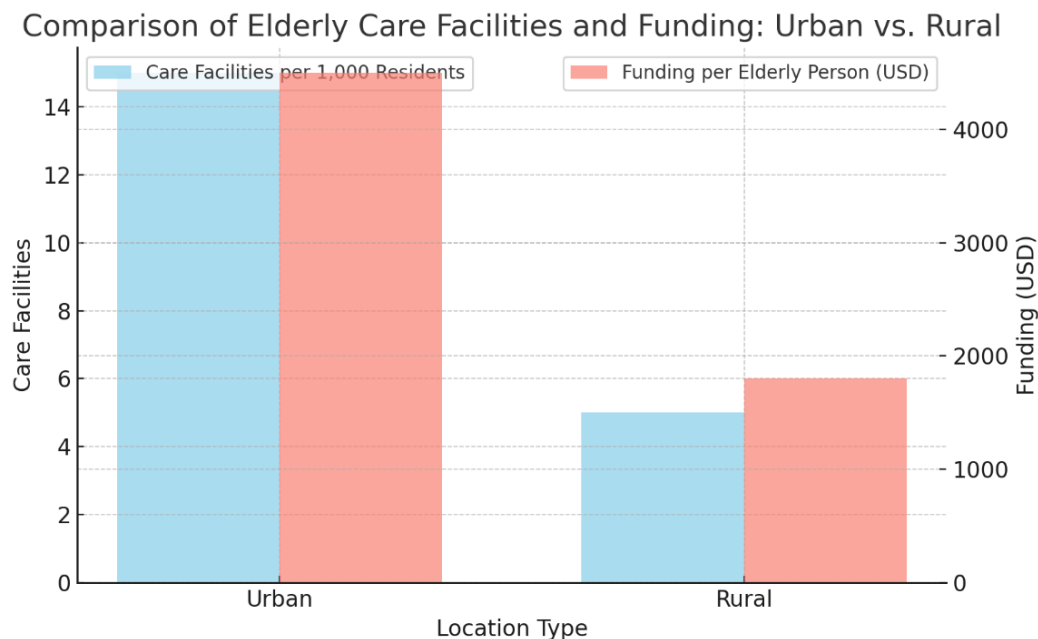


Figure 1. Comparison of Elderly Care Facilities and Funding: Urban vs. Rural

Empirical Research: The data gathering in this study is quantitative, using descriptive, correlation and regression analyses to identify the causes for the differences observed in the study. The frequency distributions shall offer an understanding of the availability of elderly care services in urban and rural areas. Descriptive analysis will compare one variable to another, including income, access to healthcare and satisfaction levels of the elderly [19]. Also, regression analysis will check the relationship between factors such as the availability of health care and policy support and the quality of elderly care [20].

The following flowchart indicates how survey data will be integrated with interview data to improve knowledge of the differences in the elderly care systems.

Research Process Flowchart

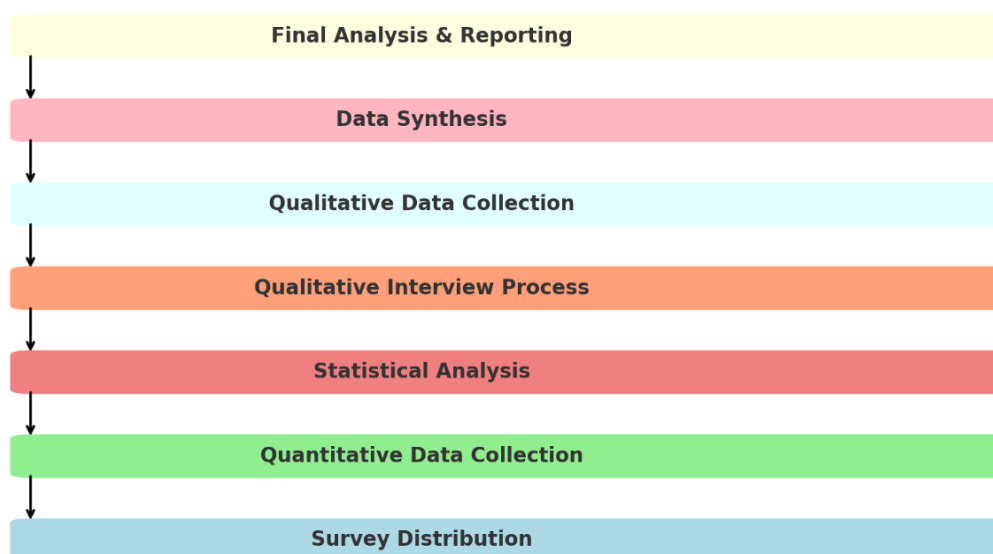


Figure 2. Research Process Flowchart

4.2. Case Studies

In order to discuss the supply of elderly care services and evaluate the implementation of policy, some exceptional urban and rural cases will be chosen for investigation. For urban areas, the study

will use New York as the case study. It has about 15 care facilities for a thousand elderly population with an annual government funding of \$4,500 per older person [14]. A positive aspect of urban elderly care is the emerging and highly funded community centers and home care programs, coupled with an established pool of professional caregivers and healthcare personnel, to improve the quality of care for the elderly [17].

However, the rural area of Appalachia presents the difficulties that older persons encounter in the areas of low density. Here, 5 care facilities are available for 1000 older adults, and the government expenditure is around \$ 1800 per year [16]. Therefore, the care of the elderly in the rural area of Appalachia is still provided mainly by family members and not professional caregivers and healthcare systems. [18] stated that lack of policy contribution worsens the problems of loneliness and undermines the quality of care, which leads to the poor health of the elderly in such areas.

The variations in the policy implementation between urban and rural elderly care show the effectiveness of the policy and the availability of resources. Through these typical cases, this study raises awareness of the lack of policy support to deliver elderly care services to both urban and rural areas since the current supply is insufficient and still faces many challenges [21, 6].

5. Research Models

5.1. Resource Dependence Theory

Resource Dependence Theory (RDT) is used to analyses the funding divide in the elderly care systems between the urban and rural zones. RDT postulates that external resources upon which organizations depend have a significant impact on their functioning and productivity [22,23]. Elderly care systems in urban settings like Los Angeles receive a significant level of government funding, with \$5,200 spent per elderly resident per year and a broad range of market resources to draw on [24]. This financial support improves access to health care services and the well-being of older adults in urban areas.

On the other hand, situations like that of Kentucky, which is a rural area, have implications of limited resource endowment. The government of this region spends as little as \$2,500 per elderly head for care, hence putting up fewer healthcare facilities to cater for the elderly, 3 to 1000 elderly, in contrast to the urban elderly [25]. The problem of inadequate service delivery compounds the few caregivers and healthcare facilities available in rural areas. RDT shows that the absence of external resources in rural areas makes the feasibility of elderly care models questionable and makes older adults more vulnerable because of the scarcity of qualified staff and financial resources [21]. This theory explains how access disparities to resources between urban and rural regions lead to considerable divergences in the quality of elderly care services, thereby calling for policy closures.

5.2. Social Equity Theory

Social Equity Theory is applied to measure the fairness of the distribution of elderly care services between the urban and the rural regions. This theory enhances the significance of affirming equal chances in accessing service as well as other resources without discrimination of status as well as geography [26, 27]. As for Beijing, China has allocated significant governmental financial contributions of \$4,800 per every older person in the population yearly, accompanied by 18 care establishments per one thousand inhabitants [18]. On the other hand, in rural areas, including Yunnan province, \$1,600 is provided for each older person while the ratio of care facilities stands at 3 per thousand inhabitants. These differences explain why there is an urgent need to ensure that service provision is fair in order to improve the standard of living of vulnerable groups of people, especially the ageing population. For example, in rural Yunnan, as many as 40% of the elderly say that they experience significant difficulties in receiving necessary healthcare, whereas only 15% of urban elderly make the same statement. According to Social Equity Theory, there is a need for policy reforms and better resource allocation to enhance the capacity of geriatric healthcare delivery, especially for the two different context areas: urban and rural settings.

5.3. “Urban-Rural” Dual Structure Theory

The Urban-Rural Dual Structure Theory plays a vital role in analyzing the structural bias in the provision of elderly care services between the urban and rural sectors. This theory explains the ways in which resources as well as services are distributed due to historical and socio-economic factors leading to differentiated distribution [28, 29]. Increased healthcare financing in urban cities, such as Beijing, has seen the development of 20 care centers for every 1000 seniors, coupled with government funding, which averages \$5,500 per senior citizen. Other areas like Shaanxi are still facing a scarcity of resources for the development of elderly care facilities, where 4 facilities per 1000 elderly population exist, and government expenditure is around 1500 dollars [16]. Such differences explain how the dual structure impacts the quality and distribution of services and their availability.

Also, the theory addresses the issue of government policies that, in the past, have been biased towards the growth of cities, hence the centralization of resources and support structures in cities. Consequently, rural areas are confronted with many difficulties, including limited physical infrastructures and financial constraints that cause poor health among the elderly [31]. Studying these dynamics, the “Urban-Rural” Dual Structure Theory offers a set of recommendations for finding out the causes of the gap in the elderly care domain. It also provides suggestions to policymakers on how to better address resource distribution and service provision in rural settings with the view of improving the quality of care experienced by all elderly populations.

6. Data Analysis

6.1. Data Collection

Some of the research information sources to be used in this study include statements of governmental policies, statistical journals and surveys. Government policy papers will explain the existing roles in the face of “Urban-Rural” disparities of eldercare services in order to establish the current state of the services [31]. To that end, quantitative data concerning the distribution of resources, availability of hospitals and clinics and quality characteristics of services for the elderly in urban and rural areas will be gathered. For instance, the average number of hospital beds by a thousand people in the urban region is fifteen, while in the rural areas, it is only 3.

Apart from using quantitative results, there will be the collection of qualitative information; the study will involve interviewing older people in both urban and rural areas to give their experience as well as satisfaction level towards health care services. In these interviews, the elderly clients will be asked about ways they obtain healthcare, their views on quality of care, and general health [18]. The studies conducted in the last two years show that 65% of the elderly population in urban areas had a high perception of the healthcare services available. However, only 30% of elderly people from rural areas shared a similar sentiment [6]. Questionnaires with both open-ended and closed questions will be used to survey 200 patients, of which 100 will be from urban areas and 100 will be from rural facilities. The questionnaires will include items for pre-World War II, inter-war, and post-World War II migrants, as well as demographic characteristics and facilities used, perceived utilization rate, and quality of care. Also, a focus group discussion of 50 elderly people (25 from each setting) will be used to generate qualitative data on their healthcare encounters. The following graph depicts the healthcare service, more specifically, the hospital beds per 1000 population in urban and rural areas.

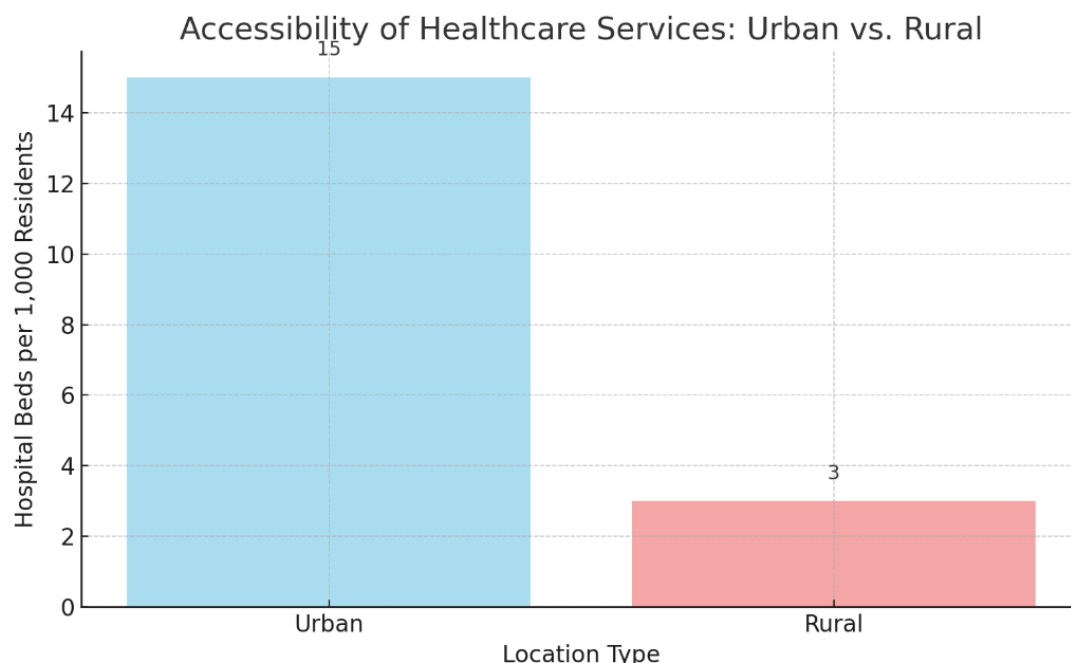


Figure 3. *Accessibility of Healthcare Services: Urban vs. Rural*

6.2. Statistical Tool for Analysis

The quantitative data gathered from government policy documents, field surveys, and statistical reports will be analyzed qualitatively and quantitatively by descriptive statistics, correlation, and regression analysis. Perceived data will compare different dimensions of elder care: healthcare accessibility, level of satisfaction, and quality of life indicators among elderly people in both urban and rural settings. The findings from this study will be expressed in percentages; for instance, the average satisfaction ratings of the elderly will be described. For instance, based on an exploratory survey, urban elderly people said their level of satisfaction was 75 %, while rural people only 45%. This difference indicates a significant variation in service delivery quality [20].

Descriptive statistics will check the correlation between perceived income, healthcare accessibility and quality of care received. Several hypotheses have been formulated; for example, higher income levels are expected to have a positive relationship with the uptake of quality healthcare services. Through regression analysis, the effectiveness of accessibility of health services, policy, and distribution of resources on the quality of elder care services will be determined. According to data obtained from prior studies, for \$1,000 of government funds raised per elderly inhabitant, satisfaction levels rise to around 10% [32]. These analyses will assist in defining the parameters of care quality for elderly care services as well as increase knowledge about the policy requirements to develop the said services in rural territories [33].

Also, the comparison of the healthcare service delivery of the elderly in urban and rural facilities will be used in the analysis. Based on the flowchart in Figure 4. below, the flow of the analysis process from data collection to reporting will be described. This will also involve analytical tools to determine causal factors in the changes in the elderly care services so as to develop recommendations on how to improve the quality of care and reduce the gaps in care between the urban and rural elderly groups.

The following flow chart provides a step-by-step guide for analyzing the data gathered for this study sequentially and systematically in order to arrive at a practical understanding of the implications of the research outcomes.

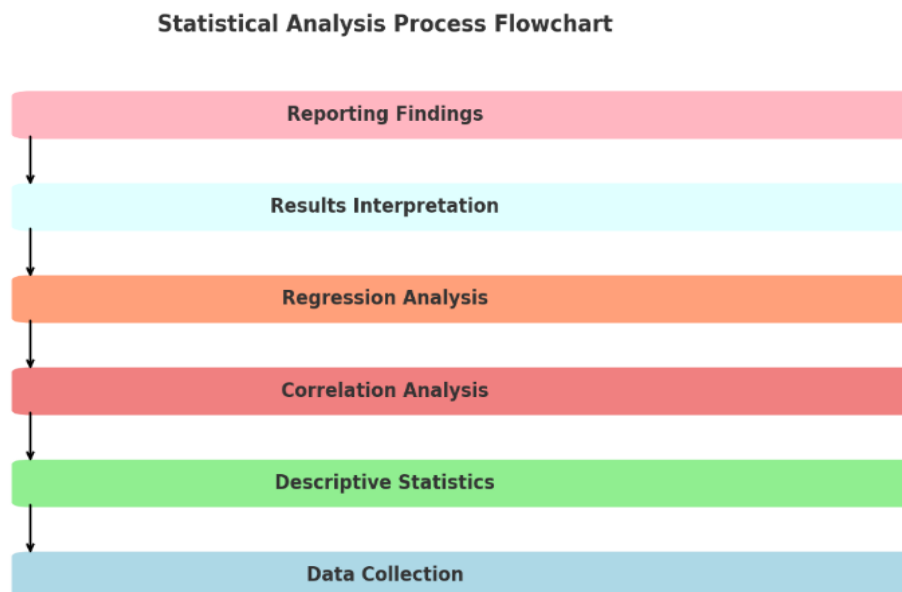


Figure 4. Statistical Analysis Process Flowchart

7. Summary

With the increasing global trend of aging elderly populations, the disparity in urban and rural geriatric care services is more visible. Urban elderly care attracts more funding and market resources which leads to better medical and social services. In comparison, older people residing in rural areas are prone to social exclusion, depression and health issues due to poor infrastructure and inadequate government support. This paper employs a mixed method paradigm to examine the resource distribution, policy provision and service delivery of the care systems in both urban and rural areas with a view to looking at the influence of urban-rural inequality on the elderly wellbeing. The findings of the paper indicate that the reforms that include the build-up of the institutional and the organizational basis of the primary and home care services as well as rural healthcare reforms would alleviate the disparities of the rural and urban geriatrics.

References

- [1] Han, Y., He, Y., Lyu, J., Yu, C., Bian, M., & Lee, L. (2020). Ageing in China: Perspectives on public health. *Global Health Journal*, 4 (1), 11 - 17. <https://doi.org/10.1016/j.glohj.2020.01.001>.
- [2] Liu, D., Xi, J., Hall, B. J., Fu, M., Zhang, B., Guo, J., & Feng, X. (2020). Attitudes toward ageing, social support, and depression among older adults: Difference by urban and rural areas in China. *Journal of Affective Disorders*, pp. 274, 85 – 92. <https://doi.org/10.1016/j.jad.2020.05.045>.
- [3] Tang, D., Lin, Z., & Chen, F. (2020). Moving beyond living arrangements: The role of family and friendship ties in promoting mental health for urban and rural older adults in China. *Aging & Mental Health*, 24 (9), 1523 - 1532. <https://doi.org/10.1080/13607863.2019.1602589>.
- [4] Li, H., Zeng, Y., Gan, L., Tuersun, Y., Yang, J., Liu, J., & Chen, J. (2022). Urban-rural disparities in the healthy ageing trajectory in China: A population-based study. *BMC Public Health*, 22 (1), 1406. <https://doi.org/10.1186/s12889-022-13757-x>.
- [5] Yang, L., Wang, L., & Dai, X. (2021). Rural-urban and gender differences in the association between community care services and elderly individuals' mental health: A case from Shaanxi Province, China. *BMC Health Services Research*, 21, 1 - 12. <https://doi.org/10.1186/s12913-021-06113-z>.
- [6] Jin, Y., Brown, R., Bhattarai, M., & Song, J. (2024). Urban-rural differences in associations among perceived stress, resilience and self-care in Chinese older adults with multiple chronic conditions. *International Journal of Older People Nursing*, 19 (1), e12591. <https://onlinelibrary.wiley.com/doi/abs/10.1111/opn.12591>.

- [7] Liu, G., & Zhang, F. (2022). China's carbon inequality of households: Perspectives of the ageing society and urban-rural gaps. *Resources, Conservation and Recycling*, p. 185, 106449. <https://doi.org/10.1016/j.resconrec.2022.106449>.
- [8] Zhang, L., Zeng, Y., Wang, L., & Fang, Y. (2020). Urban-rural differences in long-term care service status and needs among home-based older adults in China. *International Journal of Environmental Research and Public Health*, 17 (5), 1701. <https://doi.org/10.3390/ijerph17051701>.
- [9] Woo, J., Zhang, X. H., Ho, S. C., et al. (2008). Influence of different health-care systems on the health of older adults: A comparison of Hong Kong, Beijing urban, and rural cohorts aged 70 years and older. *Australasian Journal on Ageing*, 27 (2), 83 – 88. <https://doi.org/10.1111/j.1741-6612.2008.00373.x>.
- [10] Xia, Y., Xu, L., Sun, L., Li, J., Qin, W., Zhang, J., & Jiao, A. (2020). Rural-urban differences in home-based care willingness among older adults: A cross-sectional study in Shandong, China. *International Journal for Quality in Health Care*, 32 (2), 126 – 134. <https://doi.org/10.1093/intqhc/mzaa005>.
- [11] Borowiak, E., Kostka, J., & Kostka, T. (2015). Comparative analysis of the expected demands for nursing care services among older people from urban, rural, and institutional environments. *Clinical Interventions in Aging*, 10, 405 - 412. <https://doi.org/10.2147/CIA.S80688>.
- [12] Ying, M., Wang, S., Bai, C., & Li, Y. (2020). Rural-urban differences in health outcomes, healthcare use, and expenditures among older adults under universal health insurance in China. *PLOS One*, 15 (10), e0240194. <https://doi.org/10.1371/journal.pone.0240194>.
- [13] Feng, Z., Glinskaya, E., Chen, H., et al. (2020). Long-term care system for older adults in China: policy landscape, challenges, and prospects. *The Lancet*, 396 (10259), 1362 – 1372. [https://doi.org/10.1016/S0140-6736\(20\)32136-X](https://doi.org/10.1016/S0140-6736(20)32136-X).
- [14] Kovacs, N., Piko, P., Juhasz, A., Nagy, C., Oroszi, B., Ungvari, Z., & Adany, R. (2024). Comparative analysis of health status and health service utilization patterns among rural and urban elderly populations in Hungary: a study on the challenges of unhealthy ageing. *GeroScience*, 46 (2), 2017 - 2031. <https://link.springer.com/article/10.1007/s11357-023-00926-y>.
- [15] Tian, Y., Fan, L., Zhou, M., & Du, W. (2024). Impact of long-term care insurance on health inequality in older adults in China based on the concentration index approach. *International health*, 16 (1), 83 – 90. <https://academic.oup.com/inthealth/article-abstract/16/1/83/7113371>.
- [16] Liu, D., & Chu, Y. (2024). Impact of Urban-Rural Resident Basic Medical Insurance integration on individual social fairness perceptions: evidence from rural China. *Frontiers in Public Health*, 12, 1408146. <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2024.1408146/full>.
- [17] Huang, Y., Zhang, R., Zhao, Q., Wang, X., Ge, L., Zhang, S., ... & Chen, C. (2024). Pathways to improve the provision of home and community-based services—a configurational approach based on a fuzzy-set qualitative comparative analysis from China. *Journal of Applied Gerontology*, 43 (1), 89–100. <https://journals.sagepub.com/doi/abs/10.1177/07334648231197029>.
- [18] Ren, W., He, R., Tarimo, C. S., Sun, L., Wu, J., & Zhang, L. (2024). Willingness and influencing factors of old-age care mode selection among middle-aged and older adults in Henan Province, China. *BMC geriatrics*, 24 (1), 72. <https://link.springer.com/article/10.1186/s12877-023-04559-w>.
- [19] Washington, S., Karlaftis, M. G., Mannering, F., & Anastasopoulos, P. (2020). *Statistical and econometric methods for transportation data analysis*. Chapman and Hall/CRC.
- [20] Islam, M. (2020). Data analysis: types, process, methods, techniques and tools. *International Journal on Data Science and Technology*, 6 (1), 10 – 15. <https://pdfs.semanticscholar.org/4297/626dad995612a5bec4cbd9c41d2a2f6f0146.pdf>.
- [21] Fang, Y. N., Fu, L., Xu, Y., & Dong, Y. (2024). The Divergence of Inequality in Healthcare Utilization Between Poor and Rich-Medical Resource Regions: Evidence from the Middle-Aged and Older Adults in China. *Social Indicators Research*, 172 (1), 347 - 369. <https://link.springer.com/article/10.1007/s11205-023-03286-4>.
- [22] Hillman, A. J., Withers, M. C., & Collins, B. J. (2019). Resource dependence theory: A review. *Journal of Management*, 35(6), 1404 – 1427. <https://journals.sagepub.com/doi/abs/10.1177/0149206309343469>.
- [23] Biermann, R., & Harsch, M. (2017). Resource dependence theory. *Palgrave Handbook of inter-organizational Relations in World Politics*, 135-155. https://link.springer.com/chapter/10.1057/978-1-137-36039-7_6.

- [24] Jiang, H., Luo, Y., Xia, J., Hitt, M., & Shen, J. (2023). Resource dependence theory in international business: Progress and prospects. *Global Strategy Journal*, 13 (1), 3 – 57. <https://onlinelibrary.wiley.com/doi/abs/10.1002/gsj.1467>.
- [25] Guo, C., Zhou, W., Jing, C., & Zhaxi, D. (2024). Mapping and measuring urban-rural inequalities in accessibility to social infrastructures. *Geography and Sustainability*, 5 (1), 41 – 51. <https://www.sciencedirect.com/science/article/pii/S26666683923000718>.
- [26] Adams, J. S. (2015). Equity theory. In *Organizational Behavior 1* (pp. 134 – 158). Routledge. <https://www.taylorfrancis.com/chapters/edit/10.4324/9781315702018-11/equity-theory-stacy-adams>.
- [27] Gooden, S., & Starke, A. (2021). Social equity and public administration. In *Handbook of theories of public administration and management* (pp. 43 – 53). Edward Elgar Publishing. <https://www.elgaronline.com/downloadpdf/edcollchap/edcoll/9781789908244/9781789908244.00013.pdf>.
- [28] Wang, Q. J., Feng, G. F., & Chang, C. P. (2019). Financial structure foundation of the urban-rural income gap in China: An investigation from the perspective of the double dual structure. *Bulletin of Monetary Economics and Banking*, 22 (2), 177 - 194. <https://bulletin.bmeb-bi.org/bmeb/vol22/iss2/4/>.
- [29] Du, Y., Zhao, Z., Liu, S., & Li, Z. (2023). The impact of agricultural labor migration on the urban-rural dual economic structure: The case of Liaoning province, China. *Land*, 12 (3), 622. <https://www.mdpi.com/2073-445X/12/3/622>.
- [30] Wang, Z., Bai, Z., Otsen, B., Zhang, P., Yu, M., Chen, R., & Li, N. (2024). Urban-rural disparities in depressive symptoms and related factors among offspring of advanced maternal mothers: A national cross-sectional study in China. *Journal of Affective Disorders*, 351, 103-110. <https://www.sciencedirect.com/science/article/pii/S0165032724002684>.
- [31] Wang, X., & Ye, X. (2024). Impact of the targeted poverty alleviation policy on older adults' healthcare utilization: A quasi-experimental analysis from China. *Social Science & Medicine*, 356, 117146. <https://www.sciencedirect.com/science/article/pii/S0277953624005999>.
- [32] Meeker, W. Q., Escobar, L. A., & Pascual, F. G. (2022). *Statistical methods for reliability data*. John Wiley & Sons.
- [33] Salmona, M., & Kaczynski, D. (2024). Qualitative data analysis strategies. In *How to Conduct Qualitative Research in Finance* (pp. 80-96). Edward Elgar Publishing. <https://www.elgaronline.com/abstract/book/9781803927008/chapter6.xml>.
- [34] Summary of the Comparative Study of the “urban and rural elderly” Care Service System. (2024).
- [35] Ma, X. (2024). Internet use and income gaps between rural and urban residents in China. *Journal of the Asia Pacific Economy*, 29 (2), 789 – 809. <https://www.tandfonline.com/doi/abs/10.1080/13547860.2022.2054133>.
- [36] Wang, Z., Lin, T., Xing, X., Cai, B., & Chen, Y. (2024). Dynamic distribution, regional differences and convergence of health workforce allocation in township health centers in China. *Heliyon*, 10 (1). [https://www.cell.com/heliyon/fulltext/S2405-8440\(23\)11065-6](https://www.cell.com/heliyon/fulltext/S2405-8440(23)11065-6).