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# Healthcare consumption and its determinants in China

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**Abstract:** In the majority of countries includes China, the escalating health expenditures have become a major social concern. In China, overall health expenditures continue to increase at a rate faster than the economy, a fact that has become increasingly apparent in the 21st century and has placed a significant burden on the government and the population. Health care costs will continue to climb in tandem with the growing middle class and the aging of the population.

The purpose of the research is to identify the main determinants of health consumption in the selected country of China, and based on the results, provide recommendations.

**Keywords:** overall health expenditures, determinants of health expenditure, health consumption, aging of the population, entire population.

## Introduction

### Motivation of the research

In the majority of countries includes China, the escalating health expenditures have become a major social concern. In China, overall health expenditures continue to increase at a rate faster than the economy, a fact that has become increasingly apparent in the 21st century and has placed a significant burden on the government and the population. Health care costs will continue to climb in tandem with the growing middle class and the aging of the population. This is due to the fact that the rich tend to take better care of their health and that the elderly require more extensive medical attention than younger individuals (Fumitaka Furuoka et al., 2011). As a result, health care costs have increased in the developed countries during the past two decades. Therefore, the purpose of the research is to identify the main determinants of health consumption in the selected country of China, and based on the results, provide recommendations.

## Literature review

There were conducted several researches on a different determinants of health expenditure such as overall population of the country, population whose age above 65, out of pocket health expenditure and GDP of the country.


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According to Getzen (2004), important determinants of health care expenditure is an ageing population has its effects on cost and utilization of health care though the foregoing could be general factors or determinants of a country's total health care expenditure. Moreover, another factor influencing the quantity of public health care expenditures is the demographic issue. If the proportion of old persons in the total population increased, health care expenditures would increase. In other words, there would be a positive correlation between health care expenditures and the percentage of the entire population that is 65 or older. (Warshawsky, 1991).

According to the Zhai et al.(2017), since economic reform began in 1978, overall health expenditures have increased significantly, and their growth rate has surpassed that of GDP. Huanhuan Jia et al. (2021) , in his resource examined the driving factors of health expenditure such as GDP, number of population ,population aged 65 above, in China. Researcher stated that, GDP and Population aged 65 above have a significant effect on health expenditure. Almost the same study was conducted by Linan Wang and Yuqian Chen (2021). Experts analyzed the relationship between several factors such as, GDP, aging level, technological progress ,on the health consumption in China between 2000 and 2017. The research result illustrated the positive relationship aging level, and negative with GDP. In addition, Fumitaka Furuoka (2011) conducted the same study, about GDP, Ageing level, Government health expenditure as the determinants of health expenditure. The results of the research suggested positive significant relationship of GDP, Aging level, and negative significant between Government health expenditure on health expenditure

Moreover, in contrast to previous study that was mentioned, which was conducted by Linan Wang and Yuqian Chen (2021), the findings of a more recent study of health expenditure provided the significance of GPD as well as Grand in the determinations of health expenditure. Furthermore, Tiemin Zhai et al. (2017) researched the study a main drivers of health expenditure in China and study shows positive correlation between, Population growth and health expenditure.

## Data Description

Research represents OLS method to estimate main factors of health expenditure in China. Data was obtained from CSY (China Statistical Yearbook) and World Bank for the period 1990-2020.This data used for composing OLS regression analysis.

**Dependent variable**

lnEH - Health expenditure per capita (% of GDP). Health expenditure per capita as a percentage of GDP.

**Independent variable**

lnGDP - GDP per capita (current US$).GDP per capita is gross domestic product divided by midyear population.

lnAge65 - Population ages 65 above (% of total population). Total population ages 65 above as a percentage of the total population.

lnGrand - Grants, excluding technical cooperation (BoP, current US$).Instead of technological progress, grants are defined as legally binding commitments that obligate a specific value of funds available for disbursement for which there is no repayment requirement.


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lnPGR - Population growth (annual %).Annual population growth rate for year t is the exponential rate of growth of midyear population from year t-1 to t, expressed as a percentage .

***Table 1**. Descriptive data*

| Variable | Obs | Mean | Stv.Dev | Min | Max |
|---|---|---|---|---|---|
| lnHE | 31 | 1.562936 | .185263 | 1.255616 | 1.960095 |
| lnGDP | 31 | 7.607126 | 1.18261 | 5.761689 | 9.250395 |
| lnAge65 | 31 | 4.250283 | .0389697 | 4.185912 | 4.294091 |
| lnGrand | 31 | 19.60469 | .3319739 | 18.97094 | 20.30435 |
| lnPGR | 31 | -.3669903 | .4066513 | -1.435313 | .3834262 |

31 observation and summary of the statistics can be seen in the *Table 1.*

## Methodology

OLS (Ordinary Least of Squares) regression was used in order to examine how much effect each variable has on the Health Consumption in China. The null and alternative hypotheses are set:

1) Ho: there is no significant relationship between health expenditure and GDP
Ha: there is significant relationship between health expenditure and GDP
2) Ho: there is no significant relationship between health expenditure and aged population
Ha: there is significant relationship between health expenditure and aged population
3) Ho: there is no significant relationship between health expenditure and Grand
Ha: there is significant relationship between health expenditure and Grand
4) Ho: there is no significant relationship between health expenditure and Population growth
Ha: there is significant relationship between health expenditure and Population growth
If it is less than the critical value of the lower limit (0.05), we do not reject the null hypothesis, which states that there is link between dependent and independent variables. We reject the null hypothesis and come to the conclusion that there is a no significant connection between the independent variable and the dependent variable if the t-statistic value exceeds the critical threshold of 0.05. To establish the relationship between one dependent variable and the other main independent variables, we employ a similar method of hypothesis testing.
Equation for OLS regression analysis:

$$HE = \beta 0 \; + \beta 1 * lnGDP + \beta 2 * lnAge65 + \beta 3 * Grand + \beta 4 * lnPGR$$


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β0 indicates intercept, β1, β2, β3, β4 are coefficients of independent determinants in our model and u as an error term. These coefficients illustrate how significantly the health expenditure will change; if there will be change in independent variable.

In order to reduce the highly skewed distributions, the ln transformation was used. This helps satisfy the presumptions of statistical analysis and improves the comprehension of data patterns. The ln transformation is intended to improve the logic of both cumulative and linear models in a variety of situations. The ln transformation may be quite helpful when the data has significant relative scale variations.

**Interpretation of empirical results**

The all results regression was done from software Stata, results can be seen in tables below. *Table.2* shows that there is 31 observations, which is fits the minimum amount of observation in OLS method. Moreover, Prob>F is equal to 0, therefore regression module is significant and we 95 percent confident to reject null hypothesis. Furthermore, the R squared is 0.9489, its means that, almost 95% of the data fits the regression model, explain the relationship between dependent and independent variables and predict future value of health expenditure

***Table.2***

| | |
|---|---|
| obs | 31 |
| F(4, 26) | 120.70 |
| Prob > F | 0.0000 |
| R-squared | 0.9489 |
| Adj R-squared | 0.9410 |
| Root MSE | 0.04499 |

***Table.3***

| Source | df | SS | MS |
|---|---|---|---|
| Model | 4 | .097705427 | .244263682 |
| Residual | 26 | .052616774 | .002023722 |
| Total | 30 | 1.0296715 | .034322383 |

***Table.4***


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| | *Coefficients* | *Standard Error* | *t Stat* | *P-value* | *Lower 95%* | *Upper 95%* |
|---|---|---|---|---|---|---|
| Intercept | -42.1449 | 11.40642 | -3.69 | 0.001 | -65.59113 | -18.69867 |
| lnGDP | -.1896025 | . 0724455 | -2.62 | 0.015 | -.3385164 | -.0406885 |
| lnAge65 | 11.04533 | 2.705939 | 4.08 | 0.000 | 5.483197 | 16.60747 |
| lnGrand | -.1132256 | . 0306152 | -3.70 | 0.001 | -.1761561 | -.0502952 |
| lnPGR | .0160111 | .0515019 | 0.31 | 0.758 | -.0898525 | .1218748 |

According to *Table.4*, there are 3 statistically significant variables: GDP, Age 65, Grand, thus we fail to reject null hypotheses p-value < 0.05, and one insignificant population growth – 0.758 is greater than 0.05.Therefore we reject null hypothesis.

$$HE = -42.1449 - 0.1896025*lnGDP + 11.04533*lnAge65 - 0.18255*Grand + 0.0160111*lnPGR$$

The coefficient for GPD is negative and statistically significant. It is established that a 1 percentage increase in the nominal GDP would decrease HE by 18.9 percent with the ceteris paribus effect. Since Fumitaka Furuoka (2011) used GDP as an explanatory variable in his analysis of HE, the found positive connection is consistent with economic theory and his results.

Moreover, the results suggest that a 1 percentage increase in the Age65 is associated with the 110% percentage rise in the rate of HE. The positive impact shown for Age65 is consistent with the researcher that there is a direct correlation between the two variables.

Grand is identified as the statistically significant determinant of the HE. 1 percent change in Grand associated with 18 percent decrease in HE. The result of significance is consistent with the findings of Linan Wang and Yuqian Chen(2021). Furthermore, 1 percent growth in the PGR change would increase the HE by 1,6 percent, holding all other variables equal. The results of the effect of population growth on unemployment are inconsistent with the economic theory and findings of Tiemin Zhai et al. (2017).

## OLS assumptions

### 1. Zero-mean Condition

*Table.5* shows that, the average value of health expenditure is 3.75e-10, which indicates that the term "Errors" should not be used in conjunction with regressions since the distribution of error terms should be equal to zero.

***Table.5***

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|



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under Volume: 6 Issue: 4 in Apr-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

| | | | | | |
|---|---|---|---|---|---|
| uhat | 31 | 3.75e-10 | .0418795 | -.0886484 | . 0753638 |

2. **Homoscedasticity**

The Breusch-Pagan test is used to establish the homogeneity or heterogeneity of our regression. Therefore, if p is very small, we must reject the hypothesis and instead select an alternative hypothesis involving variance heterogeneity.

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: the variances of residuals are equal
Ha: the residuals are not equally distributed.
Variables: fitted values of lnHE

***Table.6***

| | |
|---|---|
| chi2(1) = | 2.24 |
| Prob > chi2 = | 0.1348 |

P-value is 0.1348 which is greater than 0.05 at significant level 5%.In this case, we fail to reject null hypothesis. Therefore, our data homoscedastic

3. **No auto-correlation**

According to the Durbin-Watson theory, the static value of D is calculated to determine the correlation, whereas, according to the Durbin-Watson table for our model, if the value of D falls within the range of 1.090 to 1.825, then there is no correlation, and if it falls outside of this range, then there is a correlation. As illustrated in *Table.8*, D value is 0.925883, indicating there is auto-correlation.

***Table.7***

| | |
|---|---|
| time variable: | years, 1990 to 2020 |
| delta: | 1 unit |

***Table.8***

| | |
|---|---|
| Number of gaps in sample: | 0 |
| Durbin-Watson | d-statistic( 5, 31) = 0.925883 |


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under Volume: 6 Issue: 4 in Apr-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

4. **No perfect multi-collinearity**

The *Table.9* shows that vif values of lnAge65 and lnGDP are critically high, more than 9.Therefore there is multi-collinearity , to solve this problem, we need to see the correlation between variables.

***Table.9***

| | vif | 1/vif |
|---|---|---|
| lnAge65 | 139,25 | 0.007182 |
| lnGDP | 108,81 | 0.009190 |
| lnPGR | 6,50 | 0.153794 |
| lnGrand | 1,53 | 0.653051 |

As we can see the *Table.10* illustrate that the highest correlation is lnAge65 – 0.9270, thus, we remove the lnAge65 to eliminate multi-collinearity.And create a new regression without lnAge65.

***Table.10***

| | lnHE | lnGDP | lnAge15 | lnGrand | lnPGR |
|---|---|---|---|---|---|
| lnHE | 1.000 | | | | |
| lnGDP | 0.8964 | 1.000 | | | |
| lnAge65 | 0.9270 | 0.9927 | 1.000 | | |
| lnGrand | -0.8087 | -0.8535 | -0.1307 | 1.000 | |
| lnPGR | -0.3811 | -0.0838 | 0.3662 | -0.0128 | 1.000 |

**Solution:**

As each variable's value dropped below 5 *Table.11*, we eliminated multi-collinearity and confirmed that our regression model was accurate after lnAge65 was removed.

***Table.11***

| | vif | 1/vif |
|---|---|---|
| lnGDP | 3,81 | 0.262533 |
| lnPGR | 3,71 | 0.264347 |
| lnGrand | 1,03 | 0.966797 |


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## Conclusion

To summarize, it was analyzed several past articles, in order to understand the importance of the topic. Due to those studies, it was selected 4 factors such as GDP gross domestic product, Age65 population aged above 65, grand, that affect the health expenditure in Chine. The empirical results showed us the GDP, Grand and Age65 have significant impact on the HE rather than Population growth. Therefore, we accept null hypotheses for GDP, Grand, Age65, and reject null hypothesis for Population growth. Moreover, the parameters R^2 the model also showed that the model works in 95 percent of the cases. Thus we can state that the regression model can predict the future value of the HE in Chine, and help the scientist to make right economic decisions.

## Reference

Furuoka, F. et al. (2011). *WHAT ARE THE DETERMINANTS OF HEALTH CARE EXPENDITURE? EMPIRICAL RESULTS FROM ASIAN COUNTRIES*.

He Jingwei, A. (2011). COMBATING HEALTHCARE COST INFLATION WITH CONCERTED ADMINISTRATIVE ACTIONS IN A CHINESE PROVINCE. *Public Administration and Development*, 31 (3), 214–228. Available from https://doi.org/10.1002/pad.602 [Accessed 24 November 2022].

Jia, H. et al. (2021). Total Health Expenditure and Its Driving Factors in China: A Gray Theory Analysis. *Healthcare*, 9 (2), 207. Available from https://doi.org/10.3390/healthcare9020207 [Accessed 9 October 2022].

National Bureau of Statistics of China. (2021). China Statistical Yearbook 2021. *www.stats.gov.cn*. Available from http://www.stats.gov.cn/tjsj/ndsj/2021/indexeh.htm.

Nghiem, S.H. and Connelly, L.B. (2017). Convergence and determinants of health expenditures in OECD countries. *Health Economics Review*, 7 (1). Available from https://doi.org/10.1186/s13561-017-0164-4.

The World Bank. (2017). Population ages 65 and above (% of total) | Data. *Worldbank.org*. Available from https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS.

The World Bank. (2020). Population growth (annual %) | Data. *Worldbank.org*. Available from https://data.worldbank.org/indicator/sp.pop.grow.

Wang, L. and Chen, Y. (2021). Determinants of China's health expenditure growth: based on Baumol's cost disease theory. *International Journal for Equity in Health*, 20 (1). Available from https://doi.org/10.1186/s12939-021-01550-y [Accessed 2 October 2021].

World Bank. (2022a). GDP per capita (current US$) | Data. *Worldbank.org*. Available from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD.

World Bank. (2022b). Grants, excluding technical cooperation (BoP, current US$) | Data. *data.worldbank.org*. Available from https://data.worldbank.org/indicator/BX.GRT.EXTA.CD.WD [Accessed 24 November 2022].

Xu Penghui Zhao Xicang and Li Haili. (2022). Direct and indirect effects of health expenditure on economic growth in China. *World Health Organization - Regional Office for the Eastern Mediterranean*. Available from https://www.emro.who.int/emhj-volume-28-2022/volume-28-



ISSN 2576-5973 (online), Published by "Global Research Network LLC"
under Volume: 6 Issue: 4 in Apr-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

issue-3/direct-and-indirect-effects-of-health-expenditure-on-economic-growth-in-china.html [Accessed 24 November 2022].

Zhai, T., Goss, J. and Li, J. (2017). Main drivers of health expenditure growth in China: a decomposition analysis. *BMC Health Services Research*, 17 (1). Available from https://doi.org/10.1186/s12913-017-2119-1 [Accessed 3 October 2020].

## Appendix

**sum lnHE lnGDP lnAge65 lnGrand lnPGR**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| lnHE | 31 | 1.562936 | .185263 | 1.255616 | 1.960095 |
| lnGDP | 31 | 7.607126 | 1.18261 | 5.761689 | 9.250395 |
| lnAge65 | 31 | 4.289213 | .0358168 | 4.236206 | 4.345064 |
| lnGrand | 31 | 19.60469 | .3319739 | 18.97094 | 20.30435 |
| lnPGR | 31 | -.3669903 | .4066513 | -1.435313 | .3834262 |

**reg lnHE lnGDP lnAge65 lnGrand lnPGR**

| Source | SS | df | MS | | | |
|---|---|---|---|---|---|---|
| | | | | Number of obs | = | 31 |
| | | | | F(4, 26) | = | 120.70 |
| Model | .977054727 | 4 | .244263682 | Prob > F | = | 0.0000 |
| Residual | .052616774 | 26 | .002023722 | R-squared | = | 0.9489 |
| | | | | Adj R-squared | = | 0.9410 |
| Total | 1.0296715 | 30 | .034322383 | Root MSE | = | .04499 |

| lnHE | Coef. | Std. Err. | t | P>\|t\| | [95% Conf. | Interval] |
|---|---|---|---|---|---|---|
| lnGDP | -.1896025 | .0724455 | -2.62 | 0.015 | -.3385164 | -.0406885 |
| lnAge65 | 11.04533 | 2.705939 | 4.08 | 0.000 | 5.483197 | 16.60747 |
| lnGrand | -.1132256 | .0306152 | -3.70 | 0.001 | -.1761561 | -.0502952 |
| lnPGR | .0160111 | .0515019 | 0.31 | 0.758 | -.0898525 | .1218748 |
| _cons | -42.1449 | 11.40642 | -3.69 | 0.001 | -65.59113 | -18.69867 |



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```
. vif
```

| Variable | VIF | 1/VIF |
|---|---|---|
| lnAge65 | 139.25 | 0.007182 |
| lnGDP | 108.81 | 0.009190 |
| lnPGR | 6.50 | 0.153794 |
| lnGrand | 1.53 | 0.653051 |
| Mean VIF | 64.02 | |

```
. corr lnHE lnGDP lnAge65 lnGrand lnPGR
(obs=31)
```

| | lnHE | lnGDP | lnAge65 | lnGrand | lnPGR |
|---|---|---|---|---|---|
| lnHE | 1.0000 | | | | |
| lnGDP | 0.8964 | 1.0000 | | | |
| lnAge65 | 0.9296 | 0.9927 | 1.0000 | | |
| lnGrand | -0.3811 | -0.0838 | -0.1307 | 1.0000 | |
| lnPGR | -0.8087 | -0.8535 | -0.8802 | -0.0128 | 1.0000 |

```
vif
```

| Variable | VIF | 1/VIF |
|---|---|---|
| lnGDP | 3.81 | 0.262533 |
| lnPGR | 3.78 | 0.264347 |
| lnGrand | 1.03 | 0.966797 |
| Mean VIF | 2.88 | |

```
predict uhat, residual

sum uhat
```

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| uhat | 31 | 3.75e-10 | .0418795 | -.0886484 | .0753638 |



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```
. estat hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of lnHE

         chi2(1)      =     2.24
         Prob > chi2  =   0.1348

. gen years = _n

. tsset years
        time variable:  years, 1 to 31
                delta:  1 unit

. dwstat

Durbin-Watson d-statistic(  5,    31) =  .9025583
```

**REFERENCE:**


1. Zukhriddinoglu, N. J. (2022). Theoretical Foundations of the Concept of the Company's Competitiveness. International Journal on Orange Technologies, 4(3), 86-90.
2. Nizomiddinov, J. Z. (2022). MUHAMMAD AMINKHOJA MUKIMI ENLIGHTENER OF THE NATIONAL AWAKENING. Вестник магистратуры, (3-2 (126)), 121-122.
3. Nizomiddinov, J. Z. (2022). MUQIMIYNING “SAYOHATNOMA” SIDA DAVR, MUHIT, VOQELIK TASVIRI. Ученый XXI века, (3 (84)), 15-21.
4. Nizomiddinov, J. Z. O., & Burkhanov, A. U. (2022). IMPROVING METHODS FOR ASSESSING THE COMPETITIVENESS OF TRADE ENTERPRISES. In АКТУАЛЬНЫЕ ВОПРОСЫ НАУКИ 2022 (pp. 42-44).
5. Usmanovich, B. A. (2021). WAYS TO IMPROVE THE FINANCIAL RESULTS OF ENTERPRISES. In Interdisciplinary Conference of Young Scholars in Social Sciences (USA) (pp. 176-178).
6. Zuhriddin o’g’li, N. J. (2022). O'ZBEKISTONDA ICHKI TURIZMNI RIVOJLANTIRISH. BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI, 2(6), 159-163.




ISSN 2576-5973 (online), Published by “Global Research Network LLC”
under Volume: 6 Issue: 4 in Apr-2023 https://www.globalresearchnetwork.us/index.php/AJEBM

7. Zuhriddin o’g’li, N. J. (2022). RAQAMLI TEXNOLOGIYALARNING TASHQI IQTISODIY FAOLIYATNI RIVOJLANTIRISHDAGI O ‘RNI. IJTIMOIY FANLARDA INNOVASIYA ONLAYN ILMIY JURNALI, 2(6), 45-48.
8. Zukhriddin o’g’li, N. J. (2022). MUQIMIYNING IJODIY MEROSI. TA'LIM VA RIVOJLANISH TAHLILI ONLAYN ILMIY JURNALI, 2(3), 82-85.
9. Zuxriddin o‘g‘li, N. J. (2022). КОРХОНАЛАР РЕНТАБЕЛЛИГИНИ ОШИРИШ ЙЎЛЛАРИ. BARQARORLIK VA YETAKCHI TADQIQOTLAR ONLAYN ILMIY JURNALI, 212-215.
10. Zukhriddinoglu, N. J., & Usmanovich, B. A. (2022). Improving Methods for Assessing the Competitiveness of Trade Enterprises. International Journal on Integrated Education, 5(2), 42-44.
11. Oglu, N. J. Z., & Usmanovich, B. A. (2022). Increasing the competitiveness of an industrial enterprise in the foreign market.
12. Usmanovich, B. A. (2022). CONDITIONS AND FACTORS FOR INCREASING COMPETITIVENESS. Лучшая научно-исследовательская работа 2022 3, 53.




ISSN 2576-5973 (online), Published by “Global Research Network LLC"
under Volume: 6 Issue: 4 in Apr-2023 https://www.globalresearchnetwork.us/index.php/AJEBM