

摘要

台灣在國民所得持續增加下，人民高度重視生活品質，同時隨著飲食西化、三高富裕病盛行，生活環境中眾多汙染因子也危害人們健康，使得人民對醫療的需求更為迫切，因此本研究應用「差額分析情境相依資料包絡分析法」來探討台灣 2013 至 2017 年各縣市醫療資源的經營績效，並將各縣市區分成不同效率層級，利用相對吸引力值與相對進步力值探討各縣市優劣勢，並且比較 22 縣市跨時序之效率變動，再給予改善的方法與途徑。

研究結果顯示，2013 至 2017 年的五年期間 (1)臺北市、新竹市、澎湖縣、連江縣為效率層級中最高階層與有較高的相對吸引力值，代表為效率表現最佳。(2)新竹縣、嘉義縣、花蓮縣為較低效率層級與較高相對進步值，表示效率表現較差。(3)在改善目標中以 2017 年為例，Level2 需要平均減少 6.09%的投入，以及平均增加 33.94%的產出，才可達到與 Level1 相同的效率表現。(4)在麥氏生產指數方面，五年期間全體縣市平均生產力僅微幅成長，主要是醫療資源營運規模效率提升所產生效果。其中生產力成長最高為南投縣；生產力衰退最多為高雄市。

關鍵詞：醫療資源、差額分析法、情境相依、資料包絡分析法、經營效率

Abstract

Under the continuous increase of national income in Taiwan, the people pay great attention to the quality of life. At the same time, the prevalence of three-hyper diseases caused by the westernization of diet and many pollution factors in the living environment endanger people's health. People's demand for medical care is more urgent. Therefore, this research applies the “Slack-based Context-dependent Data Envelopment Analysis” to explore the operational performance of medical resources in Taiwan’s counties and cities from 2013 to 2017. Each county and city is divided into different efficiency levels to explore its relative attractiveness value and relative progress value. Finally we investigate the Malmquist productivity index of medical resources of 22 counties and cities across time series. After the analyses, the ways to improve efficiency and productivity for each county and city are given.

The results show that during the five-year period from 2013 to 2017 (1) Taipei City, Hsinchu City, Penghu County, and Lienchiang County are the highest in the efficiency levels and have high relative attractiveness values, representing the best performance. (2) Hsinchu County, Chiayi County and Hualien County have lower efficiency levels and higher relative progress values, indicating that the efficiency performance is poor. (3) In the improvement target, for example, in 2017, the counties and cities in Level 2 needs an average reduction of 6.09% of the input, and an average increase of 33.94% of the output, in order to achieve the same efficiency as Level1. (4) In Malmquist productivity index, the average productivity of all counties and cities in the five-year period only increased slightly, mainly due to the efficiency of the scale of medical resources operations. Among them, productivity growth is highest in Nantou County; productivity decline is most in Kaohsiung City.

Keywords: Medical resources, Slack-based measure, Context-dependent, Data Envelopment Analysis, Operational efficiency