



## Estimates of Physicians Supply in Korea

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The Korea Council for University Education has been confirmed expanding the admission quota for medical schools to be 4,567, up 1,509 from the previous year's 3,058 [1]. However, Korean doctors strongly opposed the government's healthcare reform policies, and most trainee doctors have resigned and didn't return to training hospital in protest.

The problem of physician workforce demand/supply imbalances and the shortage of essential healthcare physician and regional uneven distribution has been a debated issue for a long time.

The recent projection for future demand and supply of physicians estimates that there will be an excess care demand in the future. Hong YC report assumed the productivity of doctors aged 65 or older will be reduced to 75%, and concluded that even if the number of admissions is increased to 1,500 from 2021, there will be a shortage of doctors and an excess of manpower may occur after a certain period of time [2]. Lee [3] estimated based on the scenario, which adjusted the current 3,058 medical school quota from 2023, the additional required level of doctor manpower is to expand the medical school admission quota by 5% every year from 2023 to 2030. The number of medical school admissions in 2030 will be 4,518, in this case. Shin [4] believes that 9,654 people will be short by 2035 if the ARIMA (Auto-regressive Integrated Moving Average) model is applied to 100% of the treatment volume and the number of treatment days is 265. This is the figure based on the government's shortage of 10,000 people in 2035.

To seek reasonable and developmental strategies of physician workforce supply and solve the regional mal-distribution, we should taking various variables or environmental factors influencing on demand/supply into consideration. Integrated forecasting approach which best suits our nation is needed to minimize a wasteful debate related to physician supply. It is necessary to establish the national level statistics indices and database about physician workforce. In addition, physician workforce planning will be discussed periodically [5]. The rapid expansion of the the admission quota for medical schools and physician supply will cause enhance the depletion of health insurance finances, adversely affect national competitiveness, reduce the quality of medical education, and will not solve the problem of essential healthcare and regional uneven distribution [6]. Current number of active doctors per 1,000 people is 2.6 in Korea, which is less than the OECD average (3.6), but the average annual growth rate of doctors is 2.84%, which is higher than the OECD average of 2.19%, which is rapidly increasing. Due to the decrease in the population and low birth-rate, even if the current medical school quota is maintained, the number of active doctors per 1,000 people in Korea will be 5.87 in 2047, exceeding the OECD average (5.82) [7].

The government estimates of physician demand were calculated using ideal scenarios that didn't account for practical variables that can impact supply and

demand. Without accounting for the practical variables, it is difficult to estimate the accurate number of supply and demand, which is crucial in determining medical admission quota. Scientific estimates considering appropriate variables are needed for the right healthcare workforce policy.

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