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• 計畫中文名稱	醫院服務量，醫師服務量與醫師專科別對口腔癌長期存活率的影響		
• 計畫英文名稱	Effects of Hospital Volume, Surgeon Volume and Surgeon Specialty on Long-Term Survival Rates for Oral Cancer		
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• 研究人員	林恆慶; 林家正 Lin, Heng-Ching		
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• 英文關鍵字	Oral cancer; Treatment outcomes; Survival rate; Taiwan		
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• 英文摘要	Background: Although the relationship between provider volume and outcomes has already been established for many types of surgical procedures, such a relationship has yet to be determined for oral cancer resections. This nationwide, population-based study assesses the effects of surgeon and hospital volume on five-year survival rates for oral cancer in Taiwan. Methods: A total of 6,666 patients who had undergone oral cancer resections between 1 January 1997 and 31 December 1999 were identified from the Taiwan National Health Insurance Research Database (NHIRD). Registry data were then linked to the "cause of death" data file published by the Department of Health in Taiwan and traced for five years from the date of the surgery to obtain the survival rate for individual patients. Volume cut-off points were selected, for both surgeon and hospital volume, to create three volume groups with similar numbers of patients. Using the Kaplan-Meier method, five-year survival rates were then calculated and compared under the log-rank test. Cox proportional hazard regressions were also used to assess the association between five-year survival rates and surgeon and hospital volume groups, with adjustment for the characteristics of both patients and providers. All p-values were two-sided. Results: A total of 3,273 deaths (49.1%) were identified amongst the sampled patients. 3 With an increase in surgeon volume, there were significant increases in the unadjusted five-year survival rate (45.5%, 49.0% and 51.8% for low-, medium- and high-volume groups, respectively; $p<0.001$); however, no such association was observed for the hospital volume groups (47.5%, 51.3% and 49.0% for		

low-, medium- and high-volume groups, respectively; p = 0.074). As compared to treatment by low-volume surgeons, operations by high- andmedium-volume surgeons were associated with respective adjusted hazard ratios of 0.795 ($p<0.001$), and 0.911 ($p<0.05$). Conclusions: Surgeon volume (but not hospital volume) has a positive effect on five-year survival rates following surgery for oral cancer in Taiwan.