# 健保給付標準改變對牙醫師診療服務量之影響：以 18 項牙醫醫療項目爲例

# The Impact of National Health Insurance Fee Schedule Changes on the 18 Dentists' Procedure Volumes


## 中文摘要

醫療項目的支付點數調高，可能誘發醫師提高服務量，以增加其收入，但因爲牙醫總額支付制度的實施，雖提供服務次數增加，最終可能導致每點支付金額的降低，實際收入未必能夠增加。因此，本研究之目的爲：探討健保給付標準改變對不同醫療項目服務量的影響，在不同年度、地區服務量的差異，以及探討不同醫療項目之間是否產生取代現象。

本研究以牙醫十八項醫療項目爲對象，資料來自中華民國牙醫全聯會所提供之健保申報資料檔，共包含銀粉填充（單、雙、三面）、前牙複合樹脂（單、雙面）、後牙複合樹脂（單、雙、三面）、玻璃離子體填充、恆牙根管治療（單、雙、三根管）、乳牙根管治療、牙結石清除（全口）、簡單性拔牙、複雜性拔牙、單純齒切除術、複雜齒切除術等十八項。以 87 年 1 月至 93 年 12 月連續七年之資料，使用 SAS 8.1 版統計軟體，進行平均數、標準差等描述性統計分析，及二因子變異數分析、相關分析、共變數分析等推論性統計。主要結果如下：

1. 支付點數調整前後，銀粉填充（三面）及乳牙根管治療等兩項醫療項目之服務量隨支付點數調高而增加；恆牙根管治療（單、三面）、複雜性拔牙等三項醫療項目之服務量隨支付點數調高而減少；銀粉填充（單、雙面）、恆牙根管治療（雙根管）、單純齒切除術等四項醫療項目之服務量在支付點數調高後有增有減。
2. 支付點數調整前後，銀粉填充（雙、三面）、恆牙根管治療（單、三根管）、乳牙根管治療、簡單性拔牙、單純齒切除術、複雜齒切除術等八項醫療項目之實際給付金額隨支付點數調高增加；銀粉填充（單面）、恆牙根管治療（雙根管）、複雜性拔牙等三項醫療項目之實際給付金額在支付點數調高之後有增有減。
3. 銀粉填充等十八項醫療項目的服務量在 87 年上半年至 93 年下半年之間有所差異。銀粉填充等十八項醫療項目的實際給付金額在台北、北區、中區、南區、高屏、花東等六個健保分局之間有所差異。
4. 銀粉填充等十八項醫療項目的實際給付金額在台北、北區、中區、南區、高屏、花東等六個健保分局之間有所差異。
5. 銀粉填充（雙面）與後牙複合樹脂（雙面）的服務量之間呈現顯著的負相關；銀粉填充（單面）與後牙複合樹脂（單面）、銀粉填充（三面）與後牙複合樹脂（三面）、恆牙根管治療（三面）與簡單性拔牙、複雜性拔牙與單純齒切除術的

服務量之間呈現顯著的正相關。

本研究之結論：給付標準調高對於診所服務量的影響並非線性關係，可能隨著不同的醫療項目而有所變化；但是給付標準調高之後，大多數醫療項目的實際給付金額都有所增加。牙科診所十八項醫療項目之服務量及實際給付金額，在不同年度及分局別均有顯著差異；在十八項醫療項目當中，僅有銀粉填充（雙面）與後牙複合樹脂（雙面）存在替代現象。本研究建議未來政策制訂應同時重視預算控管及醫療品質維持；未來研究應加入有關牙醫師個人特徵及地區差異等變項，並且探討影響醫療品質的相關因素。

英文摘要

The raise of fee schedule was supposed to encourage physicians to provide more services. Nonetheless, higher volumes may produce less income for each unit tariff and actual income wasn’t increased in the end because of global budget payment system. In sum, the purposes of this study were: (1) to explore the effect of fee schedule on volume; (2) to compare the 18 dentists’ procedures volumes in the different times and areas; (3) to examine the substitution effect between different procedures.

The database was composed of 18 dental treatments from January 1988 to December 2004. The 18 dental treatments included in this study as following: Amalgam fillings (single-, double-, and triple-surface), composite resin fillings of anterior teeth (single- and double-surface), composite resin fillings of posterior teeth (single-, double-, and triple-surface), glassionomer fillings, endodontic treatment (single-, double-, and triple-root), pulpectomy, full mouth scaling, simple tooth extraction, complicated tooth extraction, simple odontodectomy, complicated odontodectomy. SAS 8.1 analyzed the raw data. Statistical techniques used for data analysis included descriptive statistics, two-way ANOVA, correlation analysis, and ANCOVA. The following was summary of statistical results:

1. The volumes of amalgam fillings (triple-surface) and pulpectomy increased after payment adjusted upward; the volume of endodontic treatment (single- and triple-root), complicated tooth extraction decreased after payment adjusted upward; amalgam fillings (single- and double-surface), endodontic treatment (double-root), simple odontodectomy showed inconsistent trends.
2. The expenditures of amalgam fillings (double- and triple-surface), endodontic treatment (single- and triple-root), pulpectomy, full mouth scaling, simple tooth extraction, simple odontodectomy, complicated odontodectomy increased after

payment adjusted upward; the expenditures of amalgam fillings (single-surface), endodontic treatment (double-root), complicated tooth extraction showed inconsistent trends.

3. There were significant differences in the volumes of amalgam fillings et al. from January 1988 to December 2004 and among Taipei, Northern, Central, Southern, Kao-Ping and Eastern branches.

4. There were significant differences in the expenditures of amalgam fillings et al. from January 1988 to December 2004 and among Taipei, Northern, Central, Southern, Kao-Ping and Eastern branches.

5. There was significant negative correlation between the volumes of amalgam fillings (single-surface) and composite resin fillings of posterior teeth (single-surface); there were significant positive correlations between the volumes of amalgam fillings (double-surface) and composite resin fillings of posterior teeth (double-surface), amalgam fillings (triple-surface) and composite resin fillings of posterior teeth (triple-surface), endodontic treatment (triple-root) and simple tooth extraction, complicated tooth extraction and simple odontodectomy.

The conclusion of the study was that the effects of fee schedule on the volumes of outpatient dental caretreatments were different according to treatment items; the expenditures of most treatments increased after payment adjusted upwards; there was substitution between amalgam fillings (single-surface) and composite resin fillings of posterior teeth (single-surface). It was suggested that policymaking should include both budget control and the quality maintenance of care, and that further study of demographical variables of dentists and regional differences should be done.