

Figure S1. Concentration curves by dental services. CI: Concentration Index; p: p-value.

Table S1. Difference-in-Difference of out-of-pocket expenses to total dental expenses per episode.

| Variables  | Categories                 |      | Coefficients | 95% CI <sup>1</sup> |        | p-value |
|--|----------------------------|------|--------------|---------------------|--------|---------|
| Period   | 2008-2012                  | Ref. |              |                     |        |         |
|  | 2013-2017                  |      | -0.005       | -0.015              | 0.004  | 0.269   |
| Age group  | non-Elderly                | Ref. |              |                     |        |         |
|  | Elderly                    |      | 0.049        | 0.031               | 0.068  | 0.000   |
| Equivalent Income                                    | 1st quintile (Q1)          | Ref. |              |                     |        |         |
|  | 2nd quintile (Q2)          |      | 0.030        | 0.020               | 0.041  | 0.000   |
|  | 3rd quintile (Q3)          |      | 0.043        | 0.032               | 0.053  | 0.000   |
|  | 4th quintile (Q4)          |      | 0.045        | 0.034               | 0.056  | 0.000   |
|  | 5th quintile (Q5)          |      | 0.058        | 0.047               | 0.070  | 0.000   |
| Type of dental treatment                             | NHI-covered <sup>2</sup>   | Ref. |              |                     |        |         |
|  | Denture & Fixed bridge     |      | 0.135        | 0.127               | 0.144  | 0.000   |
|  | Gold inlay & Resin filling |      | 0.260        | 0.242               | 0.277  | 0.000   |
|  | Implant                    |      | 0.391        | 0.371               | 0.411  | 0.000   |
|  | Orthodontic                |      | 0.091        | 0.082               | 0.101  | 0.000   |
|  | Tooth whitening            |      | 0.135        | 0.117               | 0.152  | 0.000   |
|  | Others                     |      | 0.359        | 0.349               | 0.369  | 0.000   |
| Education  | < Elementary school        | Ref. |              |                     |        |         |
|  | Middle/high school         |      | 0.060        | 0.053               | 0.067  | 0.000   |
|  | > College                  |      | 0.070        | 0.061               | 0.079  | 0.000   |
| Total number of episodes                             |                            |      | -0.016       | -0.020              | -0.013 | 0.000   |
| Interaction term <sup>3</sup> (period and age group) |                            |      | -0.030       | -0.049              | -0.011 | 0.002   |

<sup>1</sup>95% CI: 95% confidence interval; <sup>2</sup>NHI-covered treatments include conservative, periodontics, endodontic, extraction, and sealant.; <sup>3</sup>Interaction term refers to the effect of difference-in-difference, indicating that after the dental insurance reform (2013-2017), the OOP burden in the elderly was lower than in the previous period (2008-2012); Ref: Reference.