Supplementary Table 1. **Data sources**

Supply and potential demand indicators
1. Number of dentists for 1995–2014 except for 2010 and 2012, which were not available (*1*).
2. Population data based on the censuses conducted in 1986, 1996 and 2006 (*2*) and the projected estimates for 1995–2014 (*3*).
3. Total number of dental graduates per dental school reported by CAPMAS in 2006 (*4*) and Ministry of Higher Education in 2014 (*5*) were averaged then divided by 5 to obtain the estimated number of graduates per school (a). The date each school was established was used to calculate the number of years it has been in operation from 1995 to 2014 (b). The crude number of graduates per school was calculated by multiplying (a) and (b) and the number was added for all schools in a governorate to obtain the number of graduates over the study period per governorate. This crude number assumed fixed output of graduates over time. To correct for the increase in the number of graduates by time, the crude number per governorate was multiplied by the ratio of total actual number of graduates to the total crude number.
Economic indicators
1. Mean weekly wages in 1995 and 2013 (*6,7*) corrected for inflation rate (*8*).
2. Percentage of individuals who internally migrated to another governorate seeking jobs to all those who migrated to the same governorate according to the 2006 census (*2*).

References = 1 Health services statistics [website]. Cairo: Central Agency of Public Mobilization and Statistics (http://www.webcitation.org/73UDLoKsp, accessed 30 Janaury 2020) (in Arabic). 2 Statistical yearbook 2014. Cairo: Central Agency of Public Mobilization and Statistics; 2014 (http://www.t-series.capmas.gov.eg/pdf//book_year/year_book_2014.pdf, accessed 30 January 2020). 3 Annual statistical yearbook (http://www.t-series.capmas.gov.eg/book_year.aspx. Cairo: Central Agency of Public Mobilization and Statistics (http://www.webcitation.org/73UDyTi2G, accessed 30 January 2020) (in Arabic). 4 CAPMAS Annual Higher Education Report 2006 [website]. Cairo: Central Agency of Public Mobilization and Statistics (https://www.capmas.gov.eg/Pages/Publications.aspx?page_id=5104&YearID=23452, accessed 30 January 2020) (in Arabic). 5 Annual statistics [website]. Cairo: Ministry of Higher Education; 2014 (http://portal.mohesr.gov.eg/ar-eg/Pages/statistics.aspx, accessed 30 January 2020) (in Arabic). 6. Mean weekly wages 1995. Cairo: Central Agency of Public Mobilization and Statistics (http://www.t-series.capmas.gov.eg/pdf/Employ_ wages/1995.pdf, accessed 26 October 2018). 7. Mean weekly wages 2013. Cairo: Central Agency of Public Mobilization and Statistics (http://www.t-series.capmas.gov.eg/pdf/Employ_ wages/Employ_ wages2013.pdf, accessed 26 October 2018). 8. Inflation calculator 2018 [website]. FXTOP (http://fxtop.com/en/inflation-calculator.php?A=100&C1=EGP&INDICE=EGCPI092016&DD1=01&MM1=01&YYYY1=1995&DD2=31&MM2=12&YYYY2=2014&btnOK=Compute+actual+value, accessed 30 January 2020).