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TMC HEALTH POLICY PROGRAM

REQUEST:

What is the percentage of children with dental insurance in the following counties: Brazoria, Chambers, Ft. Bend, Galveston, Harris, Liberty, Montgomery, and Waller?

RESPONSE:

Data regarding children's dental insurance coverage is found in administrative data sets, such as Medicaid and CHIP (Children's Health Insurance Program), and from survey data. The survey data we used to estimate the extent of coverage is from the Health of Houston Survey 2010 (HHS2010). Children fall into one of four mutually exclusive categories, when determining dental insurance coverage:

1. Those enrolled in Children's Medicaid
2. Those enrolled in CHIP
3. Those who are covered by private dental insurance (purchased through a parent's employer-based or other private coverage)
4. Those without health/medical insurance (but who may have low-cost private dental coverage)

⇨ $\%\ children\ with\ dental\ insurance = \frac{Medicaid+CHIP+Private\ dental\ insurance(discount)}{Total\ children\ population} \times 100$

We collected Medicaid and CHIP enrollment by county for the population aged 0-18 years (attached Appendix: Tables 1 and 2). States are required to provide dental benefits to children covered by Medicaid and the CHIP. Enrollments in Medicaid and CHIP do not overlap, therefore these numbers can be summed.

We were also able to find the total number of uninsured population aged 0-18 years, by county (Appendix: Table 3), and we have the total population aged 0-18 years, by county (Appendix: Table 4). Using these data, the number of children with private dental insurance can be estimated:

$$Private\ dental\ insurance = Total\ children\ population - (Medicaid + CHIP + Uninsured\ Dental)$$

Not all children with private medical insurance, are covered by dental insurance. The Health of Houston Survey 2010 (HHS2010) shows that 16.6% of children with private medical insurance,

were reported not to have dental insurance. Among those who reported that their children did not have medical insurance (uninsured), 10.3% stated that the child did have dental insurance. This is not uncommon, as low-cost dental plans are readily available, although they do not typically cover expensive procedures that require oral surgery and general anesthesia.

The results from the HHS2010 Harris County were used for our estimation equations. We deduced that they would be more representative for these estimations than national results. We calculated the private dental insurance enrollment in two steps in order to account for the two discount factors explained above:

First we computed the number of children enrolled in private insurance (not strictly dental):

$$Private\ insurance = Total\ children\ population - (Medicaid + CHIP + Uninsured)$$

Then we calculated the number of enrollees in private insurance who also have dental:

$$Private\ dental\ insurance = Private\ insurance \times 83.4\%$$

The medically uninsured factor was then added to the estimation equation:

$$Discounted\ private\ dental\ insurance = Private\ dental\ insurance + (Uninsured\ \times 10.3\%)$$

The complete estimation equation is:

$$\Rightarrow \quad \%\ children\ with\ dental\ insurance = \frac{Medicaid+CHIP+Private\ dental\ insurance(discount)}{Total\ children\ population} \times 100$$

The results for each county are shown in Table 5 of the Appendix.