STUDY OBJECTIVE

To estimate the out-of-pocket health care costs associated with raising a child with DS between birth and 18 years of age from the perspective of commercially insured parents.

METHODS

Patient matching

Patients in each age category in the DS case cohort were matched to control patients in the same age category in a 1:4 ratio using a greedy matching algorithm.

• Each child was matched with 3 control patients with DS and 4 control patients without DS.

• Each control patient was selected from the same age group as the DS patient with whom they were matched.

• Same sex, race, region, and insurance status were matched.

• Age at first cost event was matched.

• Same policy type (HMO, PPO, other)

• Same medical cost category

• Home health agency

• Total pharmacy cost

• Out-of-pocket medical costs

• Inpatient costs

• Total medical cost

• Medicare

• Medicaid

• Other

• HMO

• PPO

• Total

• Out-of-pocket costs

• Inpatient

• Outpatient

• Total

• Parents of children with DS incurred incremental out-of-pocket costs of $18,248 on average.

• Patients with DS spent $4,385 more on average annually than control patients.

• Patients with DS spent $6,096 more on average during their first year of life than control patients.

• Patients with DS had significantly higher average annual inpatient costs compared to matched controls.

• The greatest incremental out-of-pocket costs were incurred during the first year of life ($4,420), and inpatient costs in later years of life (incremental costs range from $162 to $421,403).

• More total annual incremental out-of-pocket costs are highest for patients with DS from birth to 1 year of age ($6,397, 870) (Table 2).

• Patients with DS incurred incremental out-of-pocket medical costs of $19,248 compared to control patients.

RESULTS

Baseline characteristics post-matching

• Patients with DS were more similar in age, sex, region, and insurance status compared to control patients.

• Same sex, race, region, and insurance status were matched.

• Age at first cost event was matched.

• Same policy type (HMO, PPO, other)

• Same medical cost category

• Home health agency

• Total pharmacy cost

• Out-of-pocket medical costs

• Inpatient costs

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DISCUSSION

• As administrative claims data were used to estimate costs, other costs may have been incurred.

• The study did not include lost productivity, which is a major component of incremental lifetime costs.

• Incremental lifetime costs can be difficult to measure due to lack of data on cost of living and educational expenses.

CONCLUSION

• Results

• To estimate the out-of-pocket health care costs associated with raising a child with DS between birth and 18 years of age from the perspective of commercially insured parents.

• Patients with DS incurred incremental out-of-pocket costs of $18,248 compared to control patients.

• Incremental lifetime costs can be difficult to measure due to lack of data on cost of living and educational expenses.

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REFERENCES

• Patients of children with DS pay an additional $44 per month in out-of-pocket medical expenses, on average, when costs are estimated from medical claims.

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• The incremental lifetime costs of raising a child with DS may be lower than previously estimated.

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• In addition, non-economic factors such as emotional considerations, personal values, and lifestyle may influence decision making.

• Incremental lifetime costs can be difficult to measure due to lack of data on cost of living and educational expenses.

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