Cystic Fibrosis Research News

Title:

Association Between Insurance Variability and Early Lung Function in Children with Cystic Fibrosis

Lay Title:

How changes in health insurance coverage for young children with CF can impact important health outcomes, such as lung function at 6 years of age

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What was your research question?

We aimed to describe the types of health insurance coverage that children with CF have before age 6, including always having private insurance, always having public insurance, and having insurance coverage that changes over time. We then looked at how health outcomes differed for children for these three groups.

Why is this important?

Each family with a child with CF has a unique social circumstance, and it is important to understand how factors that might lead to changes in health insurance, such as changes in a family's financial situation or employment, can impact key health outcomes in CF. This information is important to ensure that future studies help improve health outcomes for individuals with CF from all socioeconomic backgrounds.

What did you do?

We analysed results from over 8,000 children with CF born in the era of newborn screening in the United States and looked at their self-reported insurance status from birth to age 6. We

then looked at lung function and body mass index (BMI) at age 6 for individuals with private, public, and variable insurance to see how they differed among the groups.

What did you find?

We found that 42.3% of children in the Cystic Fibrosis Foundation Patient Registry always had private insurance, 30.0% had exclusively public insurance and 27.6% intermittent private insurance, or private and public insurance at different periods of time before age 6. We did not find any differences in BMI across the different groups but found that individuals with intermittent private and exclusively public insurance had lower lung function at age 6 compared to those with private insurance after accounting for some other factors.

What does this mean and reasons for caution?

A substantial proportion of young children in a modern CF cohort have public or intermittent private insurance coverage. While public insurance has been associated with poorer health outcomes in CF, variability in health insurance coverage, or needing to switch between private and public insurance coverage for financial reasons, may also be associated with an intermediate risk of disparities in lung function as early as age 6. Our findings suggest that insurance status, as a measure of income and other social determinants of health, influences early health outcomes in CF.

What's next?

It is critically important to address the unique barriers that individuals with CF and lower socioeconomic status face in achieving their health goals. CF teams are uniquely positioned to be able to provide treatment and services to delay lung function decline in higher-risk children. Our data also support advocacy at the local and national level for solutions to address non-medical factors that affect CF management and health outcomes.

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