
Improving nonattendance rates among pediatric patients with Medicaid or private insurance



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Background: Access to dermatologists is low among Medicaid-insured patients. Higher clinic nonattendance among Medicaid-insured patients might affect provider decisions to accept these patients.

Objective: To determine the effect of different scheduling policies on the attendance among children seen at a pediatric dermatology clinic.

Methods: In this retrospective review, we compared nonattendance among children for 3 different scheduling policies implemented over 3 consecutive years. The scheduling policies used were a first-available open scheduling policy, a 2-week in advance scheduling policy, and a 4-week in advance scheduling policy. Subset analyses were performed by clinic location and insurance type.

Results: The interval between scheduling and appointment date was directly related to nonattendance rates; rates were higher for Medicaid-insured than privately insured patients. Open scheduling was associated with a 37% nonattendance rate for Medicaid-insured patients and 18% nonattendance rate for privately insured patients. A 4-week in advance scheduling policy significantly decreased the nonattendance rate to 19% among Medicaid-insured and 7% among privately insured patients. A 2-week in advance policy further decreased the nonattendance rate to 11% among Medicaid-insured patients and 4% among privately insured patients.

Limitations: This is a retrospective study, and same-day cancellations were not tracked.

Conclusion: Decreasing the time interval between scheduling and appointment dates can significantly decrease nonattendance. This strategy might help dermatologists incorporate more Medicaid-insured patients into their practices. (J Am Acad Dermatol 2019;81:412-6.)

Key words: commercial insurance; children; Medicaid; nonattendance; no-show; pediatric; private insurance.

Almost half of all children in the United States are insured by Medicaid.¹ However, only an estimated 19% of dermatologists across the country in 13 metropolitan areas accept Medicaid-

insured children.² Care by a dermatologist for patients with chronic skin diseases, like atopic dermatitis, has been shown to improve patient outcomes and decrease the overall cost of care with

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fewer emergency room visits.³ Therefore, improved access to dermatologists is important for Medicaid-insured children who have acute or chronic skin diseases.

Strategies to minimize provider concerns about accepting this insurance type might help facilitate access to care for Medicaid-insured patients. Physician concern regarding higher clinic nonattendance rates among Medicaid-insured patients compared with privately insured patients has been documented.⁴⁻⁶ One factor that might influence the nonattendance rate is the time between scheduling an appointment and the date of the office visit. The purpose of this study was to determine the effect of decreasing the time between appointment scheduling and the actual appointment date on the nonattendance rates for both Medicaid and privately insured patients. We specifically sought to determine if the nonattendance rate decreased significantly when appointments could be scheduled no more than 2 weeks or 4 weeks in advance.

METHODS

After a 3-year trial of implementing different scheduling systems, we conducted a retrospective review of appointment nonattendance rates for each system. All clinics were held in the setting of an academic pediatric dermatology practice at 3 different sites (1 urban and 2 suburban) supervised by a single attending physician. Our institution accepts all patients, regardless of payer type, and demand for an appointment is high. The computer-based system Epic (Epic Systems Corporation, Verona, WI) was used for all scheduling. The initial scheduling system was open-ended, with first-available appointments scheduled up to a year in advance. In 2010, a 2-week in advance scheduling policy was implemented. During this time, an appointment could be scheduled no more than 2 weeks in advance. Patients calling after the schedule filled were asked to call back when the next clinic schedule opened, typically within 2 days. For greater flexibility, the system was modified in 2011 to a 4-week in advance scheduling policy.

We retrospectively examined each of these 3 scheduling policies during a 4-month period (May 1-August 31) in 2009 (for open scheduling),

2010 (for 2-week in advance scheduling), and 2011 (for 4-week in advance scheduling). The same 4-month period was chosen to promote uniformity between groups. Nonattendance rates were calculated by dividing the number of no-shows by the total number of patients who were listed on the schedule for that particular day. The

primary endpoint was a comparison of the nonattendance rates by payer type, Medicaid versus commercial insurance. All patients within the data collection period fell within 1 of these groups. Secondary endpoints included clinic location and patient status (new vs established).

Given the study objective to analyze the effect of a scheduling policy on clinic nonattendance, the 2-week in advance scheduling policy period was compared with

the open-scheduling period. Likewise, the 4-week in advance scheduling policy period was compared with open scheduling. Analysis of variance with a post hoc test was used to assess statistical significance of these comparisons. In addition, the difference in the mean nonattendance rate between the 2-week and 4-week scheduling policies was made with an additional post hoc test. This same analytic method was used to examine the nonattendance rate differences between insurance types across the periods. The within-period difference in the nonattendance rate between Medicaid-insured patients and private insured patients was assessed by *t* test. Using a Bonferroni correction for the 6 primary comparisons under investigation, we considered an alpha of 0.008 (0.05/6) to be statistically significant result. This study was approved by the Institutional Review Board at Saint Louis University School of Medicine.

RESULTS

During the 3-year review, data was collected from 94 clinic days, representing 2407 appointment slots. Over the 3-year study interval, the proportion of patients with each insurance type was similar. In 2009, 2010, and 2011 respectively, Medicaid-insured patients comprised 55%, 48%, and 50% of the total patients and commercially insured patients comprised 45%, 52%, and 50%. However, there was a higher mean percentage of Medicaid-insured

CAPSULE SUMMARY

- Only a minority of dermatologists accept Medicaid-insured patients. Higher clinic nonattendance among this group might limit acceptance.
- Shortened time intervals between scheduling and appointment dates resulted in lower nonattendance among all patients. We hope that optimized scheduling might encourage increased acceptance of Medicaid-insured patients into dermatology practices.

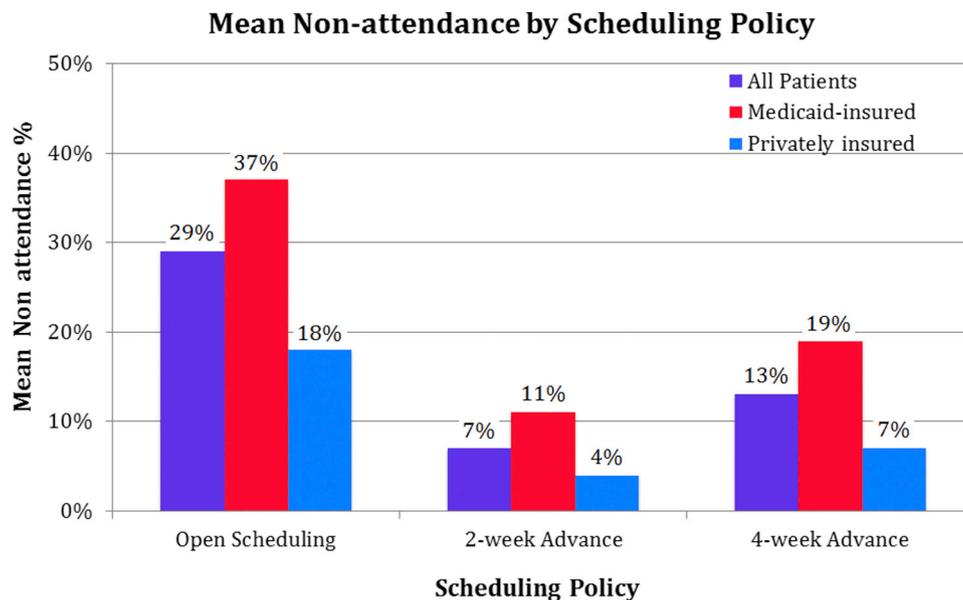


Fig 1. Nonattendance rates among Medicaid-insured and privately insured pediatric patients by scheduling policy type. For all patients, $P < .001$ when comparing both 2-week and 4-week scheduling policies with the open-scheduling policy. For all patients, $P = .029$ when comparing the 2-week with the 4-week scheduling policy. For both Medicaid-insured and privately insured patients, $P < .001$ when comparing the 2-week or 4-week scheduling policies to the open-scheduling policy. When comparing Medicaid-insured with privately insured patients within the same scheduling policy period, the P values for open, 2-week, and 4-week scheduling were $P < .001$, $P = .005$, $P < .001$, respectively.

patients (64%) at the urban office than at the 2 suburban office sites (40%, $P < .001$).

During the open-scheduling period, the nonattendance rate for all patients was 29% (Fig 1). During the 2-week scheduling policy period, the overall nonattendance rate significantly decreased to 7% ($P < .001$). The nonattendance rate during the 4-week scheduling policy period slightly increased to 13% but was still significantly less than the rate during the open-scheduling period ($P < .001$).

Analysis by insurance type revealed a nonattendance rate of 37% among Medicaid-insured patients and 18% among privately insured patients ($P < .001$) during the open-scheduling period. During the 2-week scheduling policy period, the nonattendance rate among Medicaid-insured patients (11%) and commercially insured patients (4%) were significantly decreased ($P < .001$ for both). The difference in nonattendance rates between the 2 insurance types was significant ($P = .005$). When using the 4-week scheduling policy, the nonattendance rate among Medicaid-insured patients was 19% ($P < .001$ compared with open-scheduling policy, $P = .019$ compared with 2-week scheduling policy). The nonattendance rate among privately insurance patients during the 4-week scheduling policy was 7%, a significantly reduced rate compared with that seen during the open-scheduling policy period ($P < .001$).

Analysis of the overall nonattendance rates by location type during the 3 different scheduling policy periods yielded similar findings. At the urban office, the 36% nonattendance rate during the open-scheduling policy period decreased to 8% during the 2-week scheduling policy period. This policy decreased the nonattendance rate in the suburban office by 24%-6.5%. The nonattendance rates of Medicaid-insured and privately insured patients did not significantly vary by clinic location (Medicaid $P = .316$; private $P = .071$).

The nonattendance rates of both new and established patients also decreased with shorter scheduling policies. For new patients, the nonattendance rate decreased from 33% during the open-scheduling policy period to 10% during the 2-week and 13% during the 4-week scheduling policy periods ($P < .001$). The nonattendance rate for established patients during the open-scheduling policy period was 23%, which decreased to 7% during the 2-week and 14% during the 4-week scheduling policy periods ($P < .001$).

DISCUSSION

Missed clinic appointments carry lost opportunity costs for physicians and patients alike and result in inefficiency, decreased revenue, wasted

resources, and lost opportunity for health care access by other patients.⁷ In previous studies, patients who missed appointments with their primary care or specialist physicians, including dermatologists, were more likely to be insured by Medicaid than private plans.⁵⁻⁸ Our study findings are consistent with these results; we documented an overall 37% nonattendance rate among Medicaid-insured patients and 18% among privately insured patients in our academic pediatric dermatology practice.

A small minority of general dermatologists accept Medicaid-insured patients.² This restricted access disproportionately affects children, who comprise >50% of Medicaid-insured patients.¹ Our prior secret shopper study compared Medicaid acceptance rates in 13 major metropolitan areas and found that higher Medicaid reimbursement did not necessarily lead to higher acceptance rates. This suggests that further variables are also important in a physician's decision to accept Medicaid.² Other variables that might lead to low Medicaid acceptance include complicated payment procedures, physician characteristics, professional environmental factors, and administrative paperwork.⁹⁻¹² In addition, we believe that higher nonattendance rates among Medicaid-insured patients might be a strong contributing factor. Therefore, developing strategies to minimize clinic nonattendance could improve access for Medicaid-insured patients.

In prior studies, an association was found between clinic nonattendance and longer interval between appointment scheduling and visit date.^{13,14} We attempted to design appointment scheduling systems to decrease that interval, in hopes of decreasing nonattendance. In the open-scheduling system, there had often been a 3-month delay between scheduling and visit dates. The 2-week in advance scheduling policy yielded the lowest nonattendance rates, with a >3-fold reduction among Medicaid-insured patients and >4-fold reduction among privately insured patients when compared with the open-scheduling system. The degree of improvement in nonattendance rates was similar for new and established patients. Lower, but still significant, reductions in nonattendance rates were also documented for the 4-week scheduling policy across both insurance types. This 4-week scheduling policy might be a more practical option for some practices. Both the 2-week and 4-week in advance scheduling strategies were effective in decreasing nonattendance rates in both urban and suburban dermatology practice settings.

Utilizing a shortened time-to-appointment scheduling policy is a strategy that a dermatology office

can use to decrease its nonattendance rate, regardless of the payer mix. Improvements were significant for both Medicaid-insured and privately insured patients. We feel this scheduling approach could be particularly helpful for practices that have been hesitant to accept any Medicaid-insured patients. To help increase access for this underserved patient population, offices could begin by restricting the special scheduling policy to a selected subset of appointment slots within a provider's schedule.

Limitations of this study include the retrospective, computer-based nature of our analysis, which did not allow for us to include same day cancellations as nonattendance appointments. In addition, our data set reflects a patient population seen in an academic pediatric dermatology practice, albeit in both a suburban and urban locations, that might not be fully generalizable to adult patients.

In conclusion, although there are multiple reasons why a physician might choose against accepting Medicaid-insured patients, higher nonattendance rates likely play an important role. A shortened time-to-appointment scheduling strategy was associated with significantly lower nonattendance rates among all patients, Medicaid and privately insured. Utilizing a 2-week or 4-week in advance scheduling policy might help more dermatologists incorporate more Medicaid-insured patients into their practices.

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