Executive summary

Background

The Health Access Project (HAP) of Salt Lake County is sponsored by a Community Access Program (CAP) grant administered by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services[1] and the in-kind contributions of the project's hospital and volunteer physician partners. HAP's mission is to improve access and coordinate comprehensive health care for low-income, uninsured, and underinsured residents of Salt Lake County.

HAP case managers refer clients to volunteer physicians for specialty and primary care and to community clinics for primary care. Case managers also assist clients by providing interpreters for medical appointments and helping with the completion of applications required for assistance from other agencies or charity care from hospitals.

The prospects for ongoing federal funding of HAP are unlikely. Consequently, HAP decided to conduct an evaluation of its economic performance from the perspective of potential local hospital partners who may have a financial stake in HAP's ongoing operation.

Purpose

To conduct an independent third-party appraisal of the early effects of HAP on the use and cost of hospital services (ER and non-ER) from the perspective of local partner hospitals.

Methods

The study is a single-arm, longitudinal evaluation of clients enrolled in HAP between February 20, 2002 and December 31, 2002. Primary outcomes were assessed through March 31, 2003. Eligibility for HAP intake was based on being a resident of Salt Lake County, uninsured or underinsured, and having a household income not exceeding 150% of the federal poverty level. HAP case managers evaluated potential clients referred by hospitals, clinics, volunteer doctors, and other sources. Clients who appeared to meet HAP criteria were invited to participate in an intake appointment to determine their

eligibility – according to income and County residency – and to assess their initial medical referral needs. HAP collected and stored data on each client's date of birth, gender, preferred language, date of enrollment and case closure, and site of referral (ER or non-ER). Six hospital partners provided HAP with data on ER and non-ER hospital utilization data from administrative databases.

Descriptive analyses of trends by quarter and by month were conducted for the period 1 year before and 1 year after HAP intake. Our primary analysis was to assess in a predefined subset of clients at risk of acute care the effect prior to and at HAP intake on the subsequent 4-month change in number of visits and charges.

There was no reference data for a situation without HAP. To estimate the fiscal impact of HAP, we therefore generated hypothetical 2-year scenarios of net revenue for a cohort of clients if HAP had not been implemented.

Scenario 1. Without HAP, total and compensated charges in year 2 were based on the percent change in charges observed in the analyses of acute episodes. To estimate the percent change, we used actual charges in the 0-4 months of an acute episode and set charges for each month from 5 to 11 equal to the average monthly charges in the 1-4 months after an acute episode.

Scenario 2. Without HAP, total charges and visits in year 2 would have been equal to those observed in year 1.

Scenario 3. Without HAP, total charges and visits in year 2 would have been equal to those observed with HAP in year 2. However, without HAP, total compensated charges would have been equal to those observed in year 1.

Sensitivity analyses were conducted on key assumptions.

Results

Seven hundred forty-six persons were referred to HAP between February 20, 2002 and December 31, 2002. Four hundred eighty-eight were enrolled in HAP, 469 of who were

enrolled prior to December 31, 2002. Local hospital partners had data on 288 clients; this final subset comprised the analysis population.

The mean client age was 39 years. Forty-six percent of clients preferred to speak Spanish in the medical encounter and 45% preferred to speak English. Fifty-six percent of clients were referred from the ER.

Total visits and charges increased from the year prior to HAP, e.g., average annual total charges almost doubled from $3,117 in the year prior to HAP intake to $6,027 in the year after HAP intake. Based on analysis of acute episodes applied to simulation of charges without HAP, HAP was associated with 25% fewer total visits, 1% lower total charges, and 42% higher compensated charges. The discrepancy between changes in visits and charges is due primarily to a 49% increase post-HAP in the charges per compensated non-ER visit.

Applying these results to the three scenarios with a hypothetical cohort of 300 clients, net revenue to local hospital partners ranged from $202,107 (Scenario 2) to $638,649 (Scenario 3). For the primary analysis (Scenario 1), the net revenue was estimated to be $317,988.

Conclusions

In the acute episode analysis, we found that HAP was associated with fewer total visits and higher compensated charges, with relatively little change in total charges. The benefit to local hospital partners will depend on the fraction of compensated charges that can be recouped from third-party payers. Assuming payment in full for a hypothetical cohort of 300 clients, local hospital partners should realize a 2-year net revenue between $202,000 to $639,000.