A School District Links Teacher Health to Cost Savings and Academic Achievement

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A School District Links Teacher Health to Cost Savings and Academic Achievement

Metro Nashville Public Schools

Federal education mandates and urban challenges motivated a school district to take a broader approach to medical costs and employee productivity.

The 41st largest school district in the nation, Metro Nashville Public Schools (MNPS) serves more than 83,000 students in Nashville, TN. In 2006, MNPS benefits management established a goal to improve the health of its teachers, with the expectation that this would enhance teacher productivity and, in turn, improve student achievement.

In 2012, the District generated savings of $2.8 million via the 2,300 employees using onsite clinics as their medical homes. Equally important, it has shown a correlation between teacher wellness ratings and student scores on ACT national tests.

Cost reduction is not a stand-alone goal at MNPS, it must link to improved teacher performance that improves student achievement and teacher retention. "Like all urban school districts, we struggle with student achievement standards mandated in federal laws such as 'No Child Left Behind,'" notes David Hines, Director, Employee Benefit Services.

Quick Facts

EMPLOYER:
Metro Nashville Public Schools

CASE STUDY DATE:
April 2015

INDUSTRY:
Educational Services

EMPLOYEES:
10,800, including 6,000 teachers

AGE COMPOSITION:
Average employee is 42 years old

GENDER:
79% female, 21% male

ANNUAL REVENUES:
$501 million -1 billion

PROGRAM START DATE:
2006

PROGRAM END DATE:
Ongoing

GEOGRAPHIC REGIONS:
Nashville, TN

COST ESTIMATES

Data from 2011 gives readers the clearest picture of the District's cost structure. Initial cost estimates were developed using the IBI Full-Cost Estimator and Absence Cost Estimator, including employee lost productivity and underperformance.

"Once we placed a full-cost estimate before the Insurance Trust Committee, the staff saw the value of providing actual data from the system," commented Jon Harris-Shapiro of Continuance Health Solutions (CHS), the District's consultant on the project. Findings for 2011 included:

- The overall illness burden of the covered population had an economic impact of $189.2 million, or 24% of the MNPS operating budget ($2,629 per student). The economic burden was based on actual costs

for medical, pharmacy, workers' compensation, the IBI benchmark database for short- and long-term disability, Family and Medical Leave Act (FMLA) leaves, plus lost productivity estimates using IBI's Full Cost Estimator.

- Over 105,000 days of work were lost due to health-related absences in the District, with chronic conditions driving half of all lost work days (including paid and unpaid leave and health-related underperformance).

- Wage replacement payments were $6.5 million and $5.2 million for teachers and support staff, respectively (including workers' compensation, paid sick days, short- and long-term disability and FMLA).

- Replacement staffing (substitute teachers) and lost productivity costs for teachers were $3.6 million.

- Underperformance due to poor health was equal to $9.8 million and $7.7 million for teachers and support staff, respectively.

CHALLENGES DURING LAUNCH

In 2006, the District's benefits team decided to expand the scope of health plan management to measure the impact of employee health on productivity.

MNPS is a functional department in a larger regional jurisdiction, the Metropolitan Government of Nashville and Davidson County, Tennessee. While MNPS has authority to determine its strategy and approach, Metro Government has financial controls since it provides funding. The MNPS Insurance Trust is empowered to make benefit determinations for the school board. This group is comprised of board members, employee and retiree representatives, and the chief human capital officer.

The MNPS initiative contained several components: onsite primary care clinics; face-to-face disease management and wellness programs; value-based plan design; and an integrated data warehouse to track and analyze trends in clinical, administrative and productivity metrics.

"All these components were based on our approach of increasing employee engagement with personal health, promoting primary care in a medical home, removing obstacles to care, enhancing management of chronic conditions, and promoting early treatment in a face-to-face setting," said Hines.

Although the Insurance Trust authorized the initiative, Metro Government officials opposed the initiative due to disagreements over strategy. Metro Government was rolling out a consumer-directed (CD) health plan for employees in other departments, and perceived the District's approach as a conflict. The program at MNPS had an entirely different approach: rather than motivating employees to delay or avoid medical cost (as the CD plan was presumed to do), the District wanted employees engaged in managing their chronic conditions, taking their medications, and receiving care in a clinic rather than an urgent care or emergency room setting.

Resistance to the District's approach ended in 2008 when a mayoral election swept in a new Metro Government administration. The onsite clinic plan advanced. MNPS engaged University Community Health Services to open five onsite clinics to improve employee health and productivity. The clinics occupied remodeled classroom portables located within 15 minutes of worksites. They offered same-day appointments and no more than a 15-minute wait to receive services. The clinics opened in 2009.

The clinics integrate disease management and wellness, providing face-to-face counseling with family nurse practitioners and embedded health coaches. The value-based benefit design of the Plus Plan incents patients with chronic diseases to use the clinics to secure lower-cost treatment options.

The Plus Plan has many advantages for employees, including providing some preferred brands of chronic disease medications free of charge, and other reductions to out-of-pocket costs. Yet the premium for the Plus Plan is the same as the premium for the District's other plan, making it possible for employees to switch to the Plus Plan in any month of the year, (before, during or after open enrollment) with no tax implications. The Plus Plan had 80% participation the first year it was offered, and 85% the next year.

Shortly after the launch of the clinics in 2009, another obstacle appeared: the national economic crisis hit and the District was forced to go to zero budgetary increases. This occurred when the District was already attempting to replenish reserves depleted by cost trends slightly above 8% both in 2008/2009 and 2009/2010. To cap it off, in the last month of 2009/2010, the District had a catastrophic claim involving an organ transplant.

Although the new clinics were beginning to reduce costs, the District needed system-wide cost reduction, which was achieved in part through a new contract with a new third-party administrator. The cost trend rapidly reversed in 2010/2011 to -2.8% and that trend has continued, with the five-year trend now at 2.5%. Between the clinics and the system-wide adjustments, the District has been able to replenish its health plan reserves, implement a data warehouse in 2012, and receive Joint Commission Patient-Centered Medical Home accreditation for its clinics in 2013.

RESULTS

Five years into the initiative, results tabulated by Continuance Health Solutions indicate that onsite medical clinics, chronic disease interventions and a close watch on metrics are showing results in the health and productivity of teachers and support staff. For instance:

- The total cost for adults using MNPS onsite clinics was 27% lower than for adults with other primary care providers ($372 vs. $508) in 2012.
- MNPS saved $2.8 million in 2012 alone through onsite health clinics.
- Employees who used the onsite clinics had 19% fewer inpatient admissions; 42% fewer outpatient visits; 24% fewer emergency room visits; 60% fewer urgent care visits; 31% fewer radiology tests; 15% fewer surgical procedures; and 15% fewer laboratory tests than employees who received primary care elsewhere.
- Employees who chose onsite health clinics as their primary care providers (PCPs) had similar "WellScores" (a composite index of health, wellbeing and engagement) as those with community-based PCPs, indicating that the worksite clinics are providing quality care on par with community-based care—at a lower cost.

After five years of operation, the clinics provide 34% of adult primary care, including 40% of employees and 20% of spouses. In customer satisfaction surveys, 99.8% consider the clinics "good to great."

In the 2014 five-year report on the initiative, MNPS district staff commented: "We have been able to reduce our annual medical trend to 2.5% (five-year average), while the market averaged around 7% to 8% per year. This last year was especially good, with -5.5% trend generating $14 million increase in reserves."

BOOSTING PRODUCTIVITY AND RETENTION

The District's investment in employee health successfully reduced medical costs and improved many measures of health for employees. For many successful health and productivity initiatives, the narrative ends at this point. But MNPS wanted to determine if its investment in the health and wellness of teachers also impacted student academic success.

For this analysis, the District implemented a WellScore composite index developed by CHS. The WellScore uses a range of clinical and behavioral indicators to quantify teacher health, wellness, and engagement. These indicators include absence, program participation, biometric values from multiple sources, diagnosed conditions, medical and pharmacy claims, avoidable hospital visits, lifestyle choices and physician engagement. "Unlike risk scores, WellScore measures opportunity and impactability," said Jon Harris-Shapiro of CHS. "WellScore is used to identify opportunities for health improvement initiatives and to measure the impact of those initiatives; it's a 'leading indicator' of change. As WellScores improve, costs decrease over time."

The WellScore data warehouse, hosted by CHS, operates under Human Capital, Benefits Department, managed by David Hines. Hines desired a separate data warehouse focused on this initiative, despite some redundancy with the District's data warehouse, because "we had to own our data in order to control the plan's destiny." Hosting of the data warehouse offsite also provides an additional layer of privacy protection.

Teachers with higher WellScores also had better teaching evaluation scores, and lower absenteeism rates. Teaching evaluations were determined by Level of Effectiveness (LOE) scores. LOE is an overall evaluation score that takes into account classroom observation, a value add measure, and a measure of student achievement.[1]

Despite these data resources, the District still faces challenges when attempting to correlate teacher WellScores with student achievement. First, student confidentiality laws prevent analysis of individual students' achievement in the context of teacher productivity. Second, metrics can be calculated at the level of individual teachers, but to avoid publicly releasing personnel information, the District must refer to aggregate data at the individual school level. Third, due to program evolution, WellScore components have changed from year to year, making multi-year comparisons very challenging. Fourth, the District's analysis did not address what may have been a critical variable: the impact of neighborhood affluence on student and teacher performance. While such an analysis might appear simple at first glance, achieving a reliable measure that is free of confounding factors requires an independent research project beyond the funding of MNPS.

Due to all three challenges above, MNPS compares WellScores and student standardized testing scores only in aggregate. Nonetheless the District is working to identify new opportunities to further develop teacher wellness and productivity.

For example, the link between wellness and retention is motivating the District to promote its onsite clinics to younger teachers. In the 2012/13 academic year, half of the total turnover among certified teachers occurred among those aged 25 to 34. This group also is less attached to health care, with many younger teachers meeting criteria for various levels of being without a medical home:

- Not receiving care anywhere at any time, or
- Receiving care in urgent care or emergency rooms with no care coordination, or
- Having no consistent primary care provider, and little to no care coordination.

Under a consumer-directed health plan, not all of these utilization trends would be regarded as problems, because they could result in lower use of medical services. But the District's view is that this results in under-treatment of chronic conditions such as hypertension, diabetes, heart disease and asthma. Delayed treatment for these conditions results in higher downstream costs. The District's strategy is to manage and/or prevent chronic

[1] The "Level of Effectiveness" list, in CODE [a data system], is the overall evaluation score that includes the average observation score (50% for teachers with individual growth, 60% for teachers without individual growth), the growth score (35% for teachers with individual growth, 25% for teachers without individual growth), and the achievement score (15%). To read more information on LOE or CODE, visit: http://team-tn.org/level-of-effectiveness/ and http://team-tn.org/evaluation/data-system/.

conditions in order to avoid catastrophic claims. In 2013/14, the average age of certified teachers without a primary care provider (PCP) was 36.6 years. Could promoting the MNPS clinics not only reduce chronic and catastrophic medical costs, but also help increase the retention rate of younger teachers? The District believes this strategy may succeed because:

- The MNPS clinics improve access to health care through convenient scheduling and location. Teachers attached to MNPS PCPs are 6% less likely to leave MNPS.
- The MNPS clinics appeal to a younger consumer; the average age of teachers using district clinics as their PCP was 39.8 years vs. 42.5 years for teachers using traditional community clinics as their PCP.
- The MNPS clinics appeal to more effective teachers (the very teachers the District most wants to retain). Among teachers using MNPS clinics, 61% scored above average (4 or 5) on Level of Effectiveness evaluations, compared to 57% among teachers using community clinics or having no PCP.

EXPANSION

Lower medical costs in the District's five clinics helped restore the insurance reserves lost in earlier years, and these savings also help pay for expansions to the District's medical system. Rather than bringing modular units to more sites, the District is considering a "brick-and-mortar" proposal for a central two-story, full-service facility with expanded physical therapy, fitness, wellness education and other enhancements. Such a facility is expected to reach additional District employees who currently use other community clinics.

Recommendations

Metro Nashville Public Schools is seeing results by executing a long-term strategy that ties all health and wellness initiatives back to its core mission of student academic achievement. Program goals include:

- Make quality primary care accessible and available to employees based on factors such as location and hours of service
- Set an overall strategy and persevere despite outside influences and challenges
- Focus on identifying and improving care for chronic conditions, including musculoskeletal issues, the number one health condition among employees
- Offer progress-based incentives to change behavior
- Reach out to individuals and evaluate root causes of poor health and decreased productivity, and identify potential solutions, such as health coaching

Integrated Benefits Institute
595 Market Street, Suite 810
San Francisco, CA 94105
P: 415-222-7280
F: 415-222-7281
info@ibiweb.org
ibiweb.org