

Cut Total Cost of Hire with Cognitive NLP

by Tim Rowan, Editor/Publisher, Home Care Technology Report

For the past 24 years, my mission has been to find and evaluate innovative technologies for Home Health, Home Care, and Hospice, and to spread the word about those I think deserve industry-wide attention. I have always focused on technologies that address the industry's patient care needs.

Long before the global pandemic changed our lives, every post-acute executive I interviewed told me that staffing is the thing that keeps them awake at night. Finding enough nurses, therapists, aides, and direct care workers was a challenge before 2020, but was elevated to a *crisis* by the confluence of three Covid consequences:

- fear of infection
- massive employment
- expanded unemployment payments that enabled survival without a job.

Healthcare's hiring challenge persists in 2023, even as we begin to come out from behind our masks. Whether it is so-called "quiet quitting" or wage competition with McDonald's and Amazon, agency executives continue to tell me they are sometimes forced to turn away business because they do not have adequate staff.

Right and Wrong Solutions

This is the reason my quarter-century search for technology tools worth recommending to my readers has lately been focused on staffing, which led to research into recruiting, hiring, and retention theories...and myths. Webinars and literature are awash with techniques to nurture and reward employees, promising incremental improvements in retention. No one talks about the cause-and-effect relationship between recruiting and retention, nor the costs of desperation hiring. My research leads me to believe retention *begins* with recruiting.

Most Home Health and Home Care recruiters I interview have resorted to an expensive, ineffective business practice. Desperate for staff, they have come to believe that hiring 10 is the only way to wind up with one good caregiver. Rarely do these individuals stop to calculate the waste inherent in this practice. It is, in fact, the single most expensive, wasteful way to acquire staff.

I have made two discoveries. First, time spent calculating your exact Total Cost of Hire is well worth the effort; measuring waste is the first step toward eliminating it. Second, there is a way to vet applicants for their likelihood of becoming quality, long-term employees.

While searching for solutions that have proven effective in other industries, I discovered a patented application of "Cognitive Natural Language Processing." Recently, I have

both been advising the patent holder how to adapt the system to our sector and teaching some early adopters how to make use of it. To my dismay, I quickly learned that most Home Health and Home Care executives have no idea what their TCH is, nor how much of it is wasted. Let's start there.

Know Your Total Cost of Hire

When I deliver my "Technology Solutions to Recruiting and Retention" speeches to state and national association gatherings, often to standing-room-only audiences eager for help, I start with an exercise to help them determine their total cost of onboarding each new hire. It may be helpful for you to do that now, before continuing to my description of Cognitive NLP. It will be more relevant after you know how much waste you have the potential to eliminate. Start by identifying every hiring expense. Calculate a monthly average based on the number of applicants. Be sure to include at least:

- Advertising for employees (billboards, Indeed/Zip/Monster, Social Media)
- Creation and support of your online job application (IT personnel, server hosting fees)
- Salaries:
 - Read and evaluate applications
 - Multiple phone calls to schedule an interview
 - Multiple interview appointment reminder phone calls
 - Interviewer(s)
 - Multiple training reminder phone calls
 - Trainers, both policies/procedures and software training
 - Preceptors and supervisors during probation period
- Background check fees (times average number of monthly hires)
- Training sessions, including opportunity cost of trainers' time out of the field, compensation for non-revenue training time, and even minor things like materials and refreshments

Once you get your agency's TCH, divide it by any given month's job offers (*not* applicants and *not* only those who complete training and show up for a first shift or visit) to arrive at how many visits a nurse or therapist has to complete or how many hours a direct care worker has to log before the net profit they generate covers their own cost of hire.

Now you have the figures you need to calculate the losses of hiring the wrong person – the one who leaves before covering their individual TCH.

Should you be in the majority of HR and other executives who believe that offering a position to anyone and everyone is the only way to wind up with the number of employees you need, calculating your TCH waste will be a sobering experience. It certainly was for one Florida personal care agency I interviewed. Their results, even if

different from yours, may function as a helpful benchmark as you go through this process.

One Agency's TCH Waste

The Florida agency's HR leadership told me that out of every 200 applications, most with an Indeed per-click fee, about 100 are qualified and are offered an interview. Of the half who show up for the interview, all 50 are offered a caregiver position and 25 of those show up for orientation.

Eighteen of the 25 work at least one shift; the other seven work none. A grand total of **eight** remain after 30 days. This agency's average quality employee count, from 200 original contacts, is a *four percent* success ratio.

Bravely, they then shared their TCH waste calculations. Using all the cost centers listed above, for every 200 applications, they determined a total outlay of \$28,050, or \$561 per applicant. Amortizing that total across the eight successful hires, agency management came to realize they would start to make a profit *after* each of the eight netted \$3,506.

The final step in this process is to translate dollars into hours, which hinges on each agency's hourly fee and fully loaded labor expense. This private duty agency's net profit was \$10.78 per hour, meaning that the final eight successful hires each needed to complete 325 hours of work to cover the full cost of their own hire and the waste of the bad hires. Said another way, each failure costs \$877, which reduces the bottom line (or takes about 80 profitable hours to offset.)

With some simple modifications to calculate episodic, LUPA, and VBP profit margins, this process can be used by Home Health agencies hiring nurses and therapists as well as Home Health Aides. It is useful for office staff as well.

Thinking Out of the "Hire Everyone" Box

This brings me to the discovery that opened my eyes to a counter-intuitive concept. It can be more profitable to *hire fewer applicants* and end up with the same number of long-term, quality employees.

It began with a random contact, through my publication, from the CEO of Austin, Texas-based **MiliMatch**. After detailing his company's success in other business areas, Eric Becker asked for my help to understand the intricacies of our healthcare sector and the characteristics of ideal clinicians and caregivers so his company could customize their patented "Cognitive Natural Language Processing" system for Home Health and Home Care.

Skeptical at first, I described to Mr. Becker the common wisdom that staff retention is accomplished by Employee-of-the-Month trophies and parties and similar efforts. He

introduced me to that Florida agency, which was already doing all those commonly recommended retention activities.

The Role of Cognitive NLP

The patented Milimatch algorithm is quite complicated, though time and expertise requirements for agency personnel are quite simple. After completing your online application, the person will see a link to a series of five open-ended questions, with your choice of encouraging invitations to fill it out, such as, “We would really like to know a little more about you.”

The only requirement is that they are asked to answer each question in at least two full sentences. This provides the algorithm with enough verbiage to do its work. As soon as they click “submit,” the MiliMatch algorithm converts their word choices and their story to a score on a 1-100 scale and presents it to you in a few minutes. You learn over time the minimum threshold to use as a guideline.

The algorithm is far more sophisticated than any personality test. It also analyzes aptitude and attitude on 24 scales, six of which are specifically home care oriented and appear at the top of the report. Areas analyzed include characteristics such as compassion, interest in caregiving, social intelligence, and dependability.

Insights from Cognitive NLP often tell you more about the individual you will be interviewing than they know about themselves. It will get you to the core of the individual much more quickly, and with uncanny accuracy. It is not meant to replace the interview but to offer insights that absolutely cannot be detected during “hunt and peck” interviewing. It may help you decide to interview a person you otherwise might not; and it may help you conserve resources by not interviewing “anyone and everyone.”

Testimony From Early Home Care MiliMatch Customers

In a recent article in [Home Care Technology Report](#), I described the experiences of four home care agencies that slashed their “bad hire” waste by deploying the Milimatch tool. Over a brief time, they each learned their own lowest MiliMatch score that indicated a candidate worth interviewing. The six primary and 18 secondary MiliMatch indicators supported the interviewer’s decision about a job offer.

All four early adopters increased their staff retention rates, from 17 percent to 30 percent.

The crucial point to note is that the rate increase came from decreasing the denominator, not by increasing the numerator. They interviewed and hired fewer individuals and wound up with the same number of good employees as before. Every avoided “bad hire” – depending on each agency’s unique costs – saved one \$561 loss and reduced the number of visits or hours the quality hires needed to work to reach the TCH breakeven number.

Let's face it. Some people have the heart, the spirit, the attitude for being a caregiver and some apply only because they need a job, any job; likewise, some otherwise superior clinicians are not cut out for the independence of Home Health. Many who click on your "Indeed" posting might be happier at McDonald's and, frankly, do not specifically want a caregiver's career and will likely continue job hunting after you hire them. Nurses and therapists may take up your interviewer's time but be better suited for a clinic or hospital position.

Today, applying for a job often is automated to the point of simply clicking a mouse without paying attention to the specifics of the job. Each click on your posting costs you, not just for the contracted price of the click, but for the outlays that add up when you act on the application. As you move forward with the applicant, costs grow, and you do not get a refund when they disappear.

Adopting Cognitive NLP does not replace any of the retention strategies the traditional consultants teach. You still want to pay competitively, acknowledge excellence, and have the occasional office party. Those efforts, however, no longer feel like an uphill battle.

Cognitive NLP Inexpensive, ROI Can be Significant

The cost of the MiliMatch system is volume-based but runs between \$5 and \$10 per applicant, insignificant in light of one agency's \$887 loss per bad hire. I learned how to use the dashboard software in about an hour. Deploying it amounts to adding a link at the end of your online application form. A typical new user determines an agency's preferred applicant score range and can tell how well it is working after as few as 90 days and certainly not more than 180 days.

To be clear, I do not recommend to my newsletter readers every new technology that crosses my desk. I evaluated MiliMatch for innovation, ease of use, effectiveness, and ROI. I considered the significance as well of the uniqueness certified by a patent and felt comfortable declaring it an improvement over familiar retention strategies and recommending it to my readers.

My contact information is below, and I am happy to discuss this solution in greater detail and answer what questions I can before putting you in touch with the right people at Milimatch who can help you try it out.

The staff shortage tidal wave will not ebb anytime soon. There is no reason it should cost you as much as it is costing now.

Following five years as CIO of a Colorado Home Health agency, Tim Rowan has been the Editor and principal writer of Home Care Technology Report, an advertiser-supported, free electronic newsletter that has been regarded since 1999 as the most trusted technology journal in the industry.

<https://homecaretechreport.com>
Tim@RowanResources.com