OPTUM™

Are you targeting the right patients with your medication adherence programs?

If you're targeting only the most obvious patients with your medication adherence programs, you're missing out on a big opportunity. Quite often, programs focus on individuals hovering around the 80 percent threshold for proportion of days covered (PDC). It makes sense. Why not use your resources to help those just below 80 percent to become adherent, while at the same time encouraging those just above 80 percent to stay there?

Surprisingly, we've found that this approach omits a significant number of individuals on both sides of the 80 percent threshold who would benefit from intervention. Meantime, it wastes resources on a large group of people who don't really need, or won't benefit from, expensive outreach programs. The key, we determined, was not only to categorize patients by where they end up on the PDC scale, but also to gauge the likelihood that they would go from non-adherence to adherence, or vice versa.

The volatile 30 percent

Through our analysis of a 3 million-member Medicare Advantage plan, we found that roughly 30 percent of the population taking medications in the three CMS star rating drug categories (diabetes medications, RAS antagonists and statins) shifted each year from adherence to non-adherence or non-adherence to adherence. Interestingly, these patients were not always those who sat right near the 80 percent PDC threshold. These insights prompted us to take a closer look at this volatile 30 percent and identify the common factors that would help explain the reasons for the movement. What we found led to the development of the Optum™ Drug Adherence Index™ 2.0 (DAI 2.0).

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The DAI 2.0 helps predict the behavior of patients in a totally new way. Through more sophisticated algorithms that consider variables such as past prescription behaviors, medical claims and sociodemographic data, this new model identifies the segments of the population that are at greatest risk of falling from adherence to non-adherence in the coming 12 months, as well as those that have the greatest propensity to rise to adherence. This data can then be broken down and honed so a health plan can take a laser-like approach to medication adherence interventions.

Using real-world data

Chart 1 below shows an actual population of Medicare patients taking RAS antagonists in dark orange. As you can see, many in this population have adherence rates of 90 to 100 percent PDC. Meanwhile, Chart 2 shows a segment of this population in gray. This represents the traditional targets of adherence programs and interventions: those in the 70 to 85 percent range. The reasoning is that the patients close to the 80 percent threshold can more easily be positively impacted.

Chart 1 — All members on drug

Chart 2 — Traditional targeting method
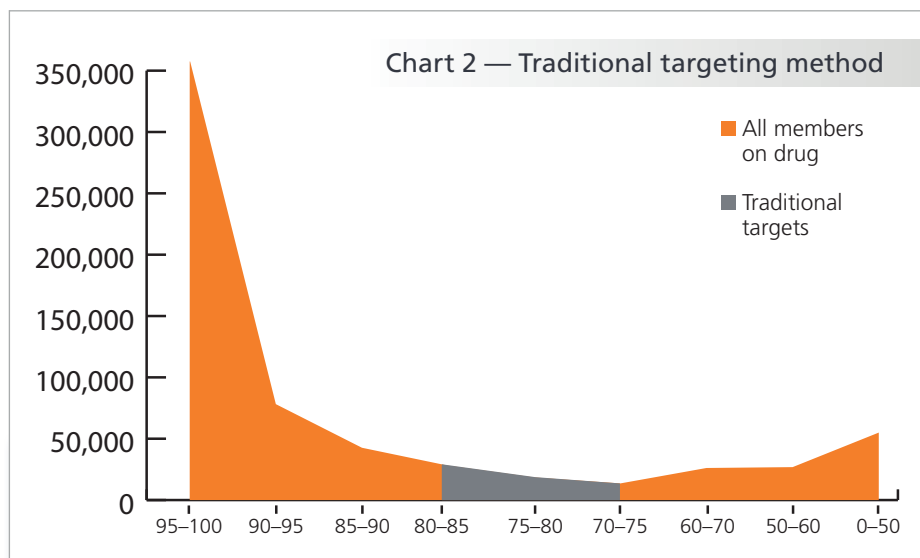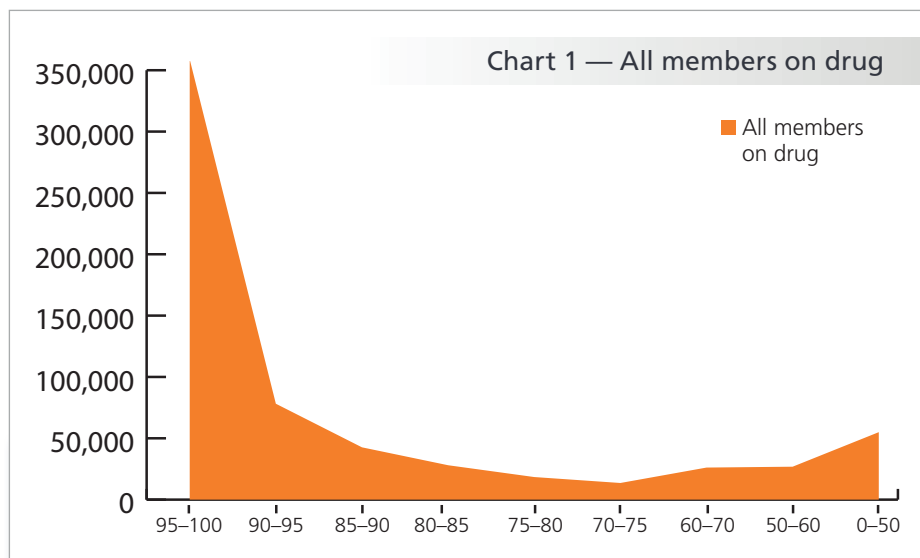
With Chart 3, we see that with the Drug Adherence Index 2.0, the patients who are actually at risk for becoming non-adherent are across the entire population — not just in the 70 to 85 percent range. In fact, many of the at-risk patients are in the 90 to 100 percent range. And over on the right-hand side of the graph, there are patients well under the 70 percent levels who could very likely become more adherent with some help. More importantly, Chart 4 shows all the patients in what we call the "blind spot," that is, patients who could benefit greatly from proactive outreach and education, but they are not seen in more traditional adherence programs.

Chart 3 — DAI 2.0 targeting method

Chart 4 — The blind spot
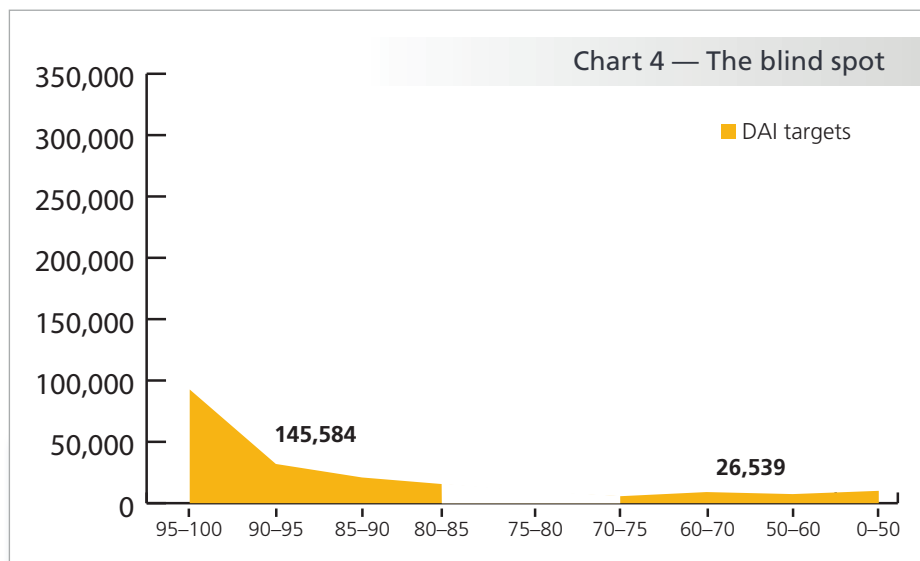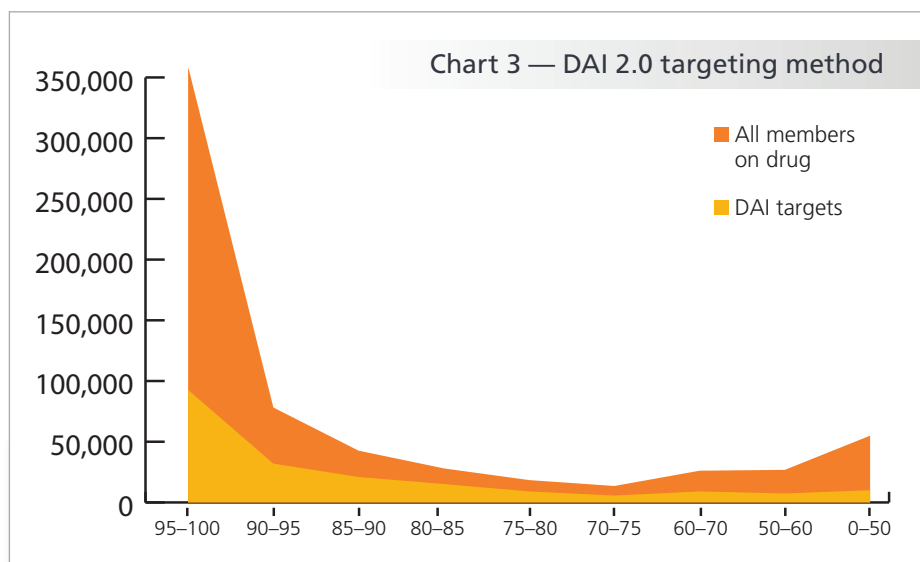
In this example, 145,584 patients are at risk for falling below the the 80 percent PDC threshold. But with traditional efforts they would be completely missed. Also, 26,539 patients who could rise to the 80 percent threshold with some assistance are also missed. Collectively, that means 172,123 patients, or 85 percent of the total population, that should have been targeted for assistance but were not. That is a big blind spot and an even bigger missed opportunity.

Greater precision

Now, since medication adherence programs can be costly, it's helpful that we can break these groups down even further so that interventions can be customized and members can be prioritized. For example, members in the ≥80 percent PDC group can be stratified according to the chances that they are going to become non-adherent. Armed with this information, you can take a more aggressive, high-touch approach with those members who need it most and use less aggressive, less expensive approaches with the others.

The DAI 2.0 can also provide a Composite Risk Score that takes into account the complexity of a member's medication regimen (i.e., based on the DAI 2.0 score), as well as their overall risk profile. This can be very important once you realize that 15 percent of a given Medicare population is taking all three star rating drug categories and another 35 percent are taking two of the three categories. In this way, composite risk scoring can improve and facilitate prioritization of outreach efforts by factoring in this added level of complexity.

At Optum, we've seen the value of this type of data firsthand with our own medication adherence solution, which includes patient and provider engagement. By using DAI 2.0 analytics with this program, we've experienced a jump in star ratings and a greater-than-industry-average improvement in population adherence levels.

What it all means to you

The DAI 2.0 can help you save time and resources by minimizing adherence blind spots. You'll find it easier to zero in on the right members and match them with the interventions most likely to help them. You'll avoid the waste in resources that can occur when you reach out to members who will not benefit from intervention, or you use the wrong intervention on a particular group of members. You'll also be able to customize your communications, based on whether a member is heading in the right or wrong adherence direction so you can connect with them better. Altogether, you'll take a more effective approach that can help put you in position to:

- Increase adherence levels
- Improve CMS star ratings
- Contain health care costs
- Improve health outcomes

With the emphasis on medication adherence growing in the campaign to manage health care costs and improve outcomes, it's vital to gain and maintain a clear understanding of how all your members are using their medications. Past assumptions may be putting an unnecessary drain on your valuable resources. The DAI 2.0 provides data and insights that can help you direct those resources so they're used most efficiently.

Meet the team

Craig Schilling, PharmD

In his role as vice president of patient programs, Craig has successfully developed large-scale member programs, with a keen focus on improving medication adherence. He is a strategic leader within Optum to deliver comprehensive, integrated cutting-edge adherence solutions on behalf of clients in numerous health care segments, which include payers, providers and pharmaceutical manufacturers. In an effort to improve CMS star rating quality measures with Medicare Advantage payers, Craig has also developed the Drug Adherence Index™ along with other analytic targeting tools, to predict future medication non-adherence and identify specific members for timely adherence intervention. Craig serves as the Pharmacy Quality Alliance (PQA) co-chair for its multidisciplinary medication adherence workgroup and has been an invited speaker, panelist and advisor at numerous national-level adherence-focused conferences and advisory boards.

Craig received his PharmD degree and completed a postdoctoral fellowship in pediatric pharmacotherapy from the University of Minnesota. He practiced nine years as a clinical specialist and was a leader in medical affairs within the pharmaceutical industry for 14 years prior to joining Optum.

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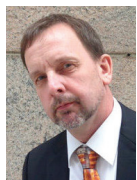
Dan Atkins

As senior director of patient programs, data science, at Optum, Dan Atkins develops the deep-dive science behind medication adherence. With a comprehensive understanding of the data science and clear business domain knowledge, Dan has been key to developing the industry-leading predictive model for medication adherence known as the Drug Adherence Index.

Dan was classically educated in finance at the Carlson School at the University of Minnesota. He quickly took to the power of the decision sciences and computers to aid in business decisions at Northwest Airlines. Prior to joining Optum, Dan spent two decades as an independent analytics consultant in Minnesota's hotbed of life science and health care organizations including payers, providers, PBMs, academics and the public sector.

Passionate about analytics and community engagement, Dan co-founded the non-profit MinneAnalytics in 2009. It now boasts over 4,500 members and is the nation's largest local data science community with analytic conferences drawing the interest of over 1,100 professionals.

Michael Edwards, MBA, PMP

Michael Edwards is the current project manager for the Optum Medication Adherence program. A passionate servant-leader with a strong analytical background, Michael has nearly 10 years of experience in health care operations and analytics with a proven track record of improving processes and managing successful operations. Michael's core competencies include operations and project management, process improvement, analytics and technology solutions, computer science, finance and applied economics, with an expert-level skill set in an array of valuable IT and business tools.

To learn how Optum can help you take an innovative, cost-efficient approach to addressing medication adherence, contact us today. In addition to the Drug Adherence Index 2.0, we offer a full range of medication adherence services, including:

- Program customization and maintenance
- Data tracking, analysis and reporting

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