



Advancing High Performance Health

AMGA Collaborative
for Performance ExcellenceSM

High-Risk Patients Domain

Are you using predictive models to risk-stratify patient populations, prioritize proactive interventions, and avoid unnecessary costs?

AMGA's Collaborative for Performance Excellence (CPX) empowers medical groups and health systems to leverage predictive models to inform shared decision-making for patients with chronic conditions and avert unnecessary emergency room visits and hospital admissions, as part of our High-Risk Patients Domain.

This domain is one of four—High-Risk Patients, Clinical Quality and Safety, Total Cost of Care, and Practice Efficiency—that enable participants to focus on specific areas to prepare for risk-based contracts and drive operational efficiency.

Domain Measures

CPX participants who choose to focus on the High-Risk Patients domain may select from the following measures:

- “Rising Risk” Patients (from Optum proprietary predictive models for hospital admissions)
- “Leaky Bucket” – HbA1c Control
- And others...

“Leaky Bucket” for Glycemic Control in People with Type 2 Diabetes Example

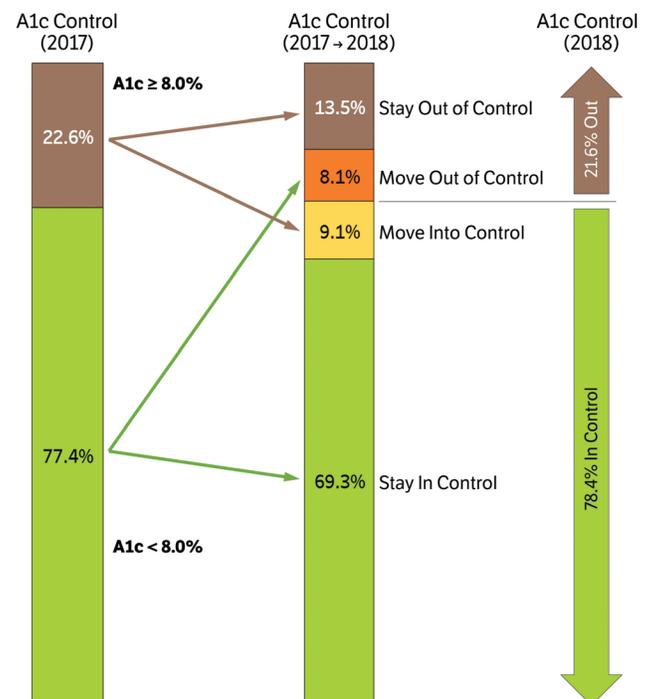
Despite concerted efforts, healthcare organizations often fail to substantially increase the proportion of patients with Type 2 diabetes whose A1c is in control. Tracking patients longitudinally reveals the reason: all the work to bring some patients into control is offset by nearly as many patients slipping out of control. It's like trying to fill up a leaky bucket!

Using the population target of A1c < 8.0 adopted for AMGA's Diabetes: Together 2 Goal[®] campaign, **Figure 1** shows that glycemic control improved just 1.0% from 2017 to 2018—from 77.4% to 78.4%—among 378,000 people with Type 2 diabetes across 24 AMGA member organizations. Many of the patients who had been out of control in 2017 came into control in 2018, accounting for 9.1% of the total population. This gain was offset by 8.1% who had been in control slipping out of

The power of data and advanced analytics, illustrated below, enables collaborative participants to:

- Leverage predictive analytics to stratify your patient population into risk categories and provide targeted interventions appropriate for each category
- Collaborate to design and refine the ways longitudinal data and predictive analytics are used in practice to deliver more proactive, cost-effective care to patients

Figure 1: Changes in A1c Control from 2017 to 2018

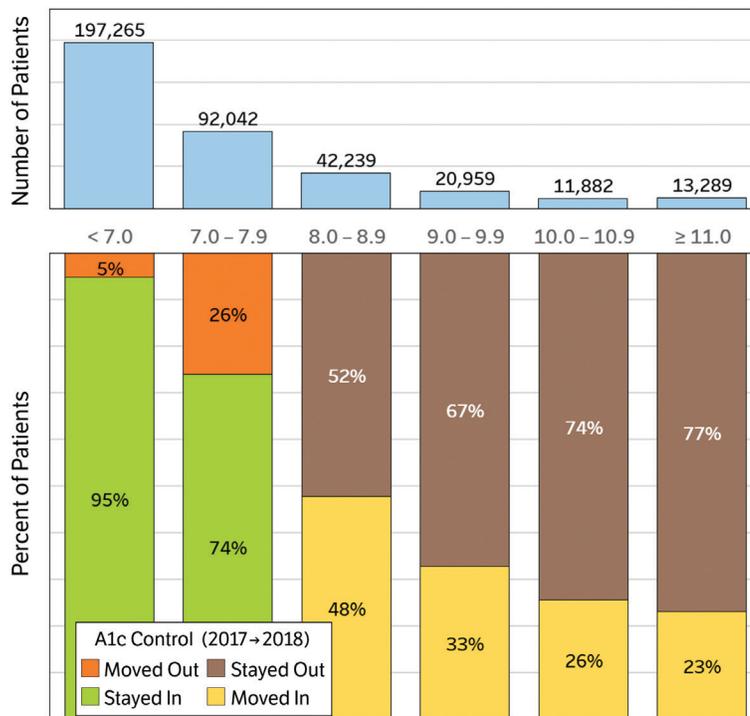


378,000 patients from 24 AMGA members meeting the criteria in 2017 Q3 and 2018 Q3 (Together 2 Goal[®] population): ages 18–75, with type 2 diabetes, measured A1c, and at least 2 ambulatory visits within the past 18 months with a PCP, cardiologist, endocrinologist, or nephrologist

control, resulting in the modest net improvement. This frustrating effect was very consistent across 24 AMGA members, with markedly less variability across organizations than is typically seen in performance or outcome measures.

Tip: CPX participants will understand the leaky bucket effect for their own medical group or health system. They will use this insight to educate providers and care teams, as well as develop interventions. Strategies used by AMGA members who have been successful keeping patients who are in control from slipping out of control include monitoring A1c more frequently and focusing on weight management. Patients with a weight gain of at least 8%, for instance, are 3 times more likely to slip out of control than those with an equivalent weight loss.

Figure 2: Change in A1c Control (2017 to 2018) by A1c Category in 2017



Among patients in **Figure 2** with A1c in the range 7.0-7.9 in 2017, 26% were ≥ 8.0 in 2018, and 48% of the smaller population with A1c in the range of 8.0-8.9 were < 8.0 in 2018. It’s not surprising that patients who are just above or below 8.0 might switch status a year later, but there are also 5% of patients < 7.0 who slip out of control, a subset who would normally be viewed as “safe.” There are more than twice as many patients < 7.0 as between 7.0-7.9, so it’s not practical to devote extra attention to all of them. But a predictive model can identify those at greatest risk of slipping out of control.

From AMGA’s “leaky bucket” predictive model, the 10% of patients with A1c in the range 5.5-6.9 identified as most likely to slip out of control, will make up more than 30% of those who, absent intervention, will slip out of control a year later. The next 10% of patients identified by the model will make up 20% of those who slip out of control. It’s practical for medical groups to focus extra attention on 20% of this population, and in doing so, an organization will have touched more than half of the patients who, without intervention, will slip out of control.

This is just one example of the population dynamics that become apparent when following patients longitudinally, rather than just looking at successive snapshots of population control rates over time. Typical quality measures don’t reflect the proportion of patients who change status, so they seriously underestimate the opportunity for improvement. Strategies for bringing patients into control, tailored to how far above the threshold the patient is at the outset, should be paired with aggressive efforts to keep high-risk patients in control, even those who appear “safe.”

Tip: Several AMGA members are using the main predictive factors from this model to prioritize certain patients for extra attention. In CPX, participants will learn from these members and others demonstrating success with predictive analytics to improve outcomes and lower costs across their patient population.