



# Improving Diabetes Care with Self Service Analytics



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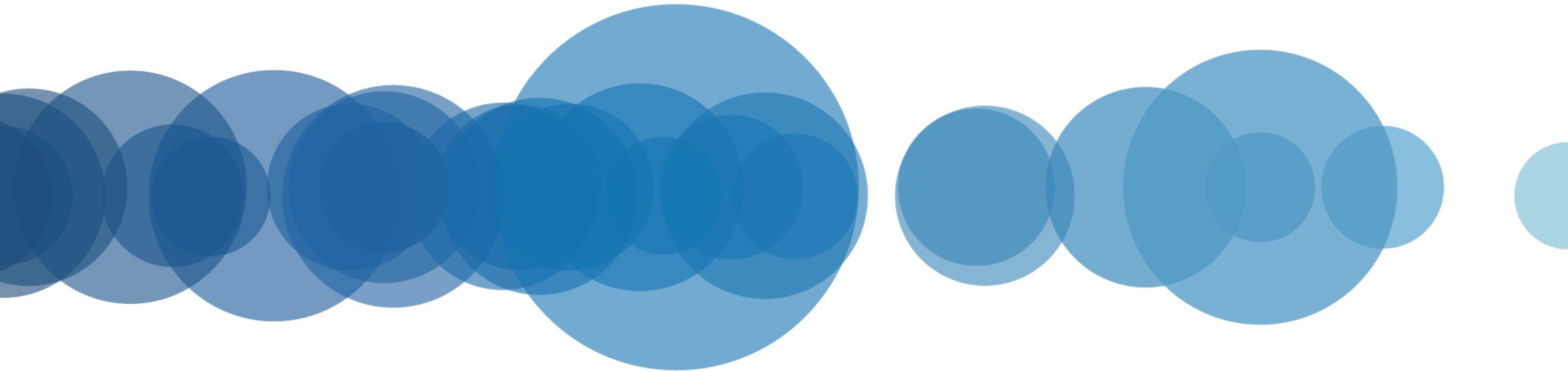


# Agenda

- Introduction
- Context
- Target
- Solution
- Next Steps
- Questions



# Introduction





## **MISSION**

Kaiser Permanente exists to provide high-quality, affordable health care services and to improve the health of our members and the communities we serve.

## **OUR VISION**

We are trusted partners in total health, collaborating with people to help them thrive and creating communities that are among the healthiest in the nation.





## **Integrated Delivery**

- Kaiser Foundation Hospitals
- Kaiser Foundation Health Plans
- Permanente Medical Groups

# About Kaiser Permanente



**12 Million** Members

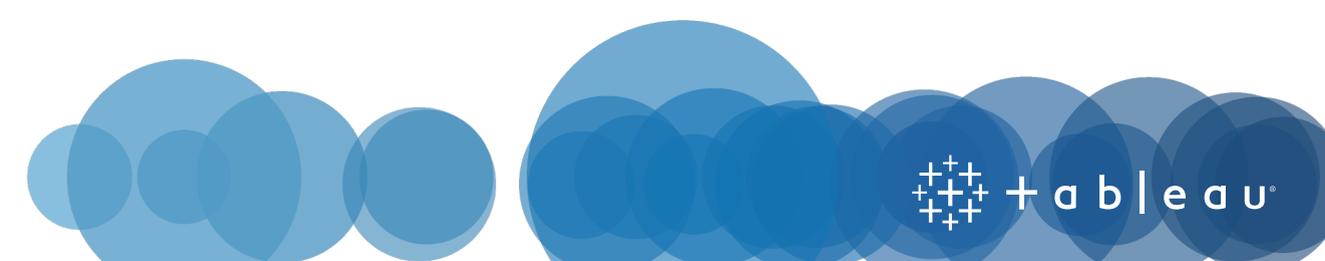
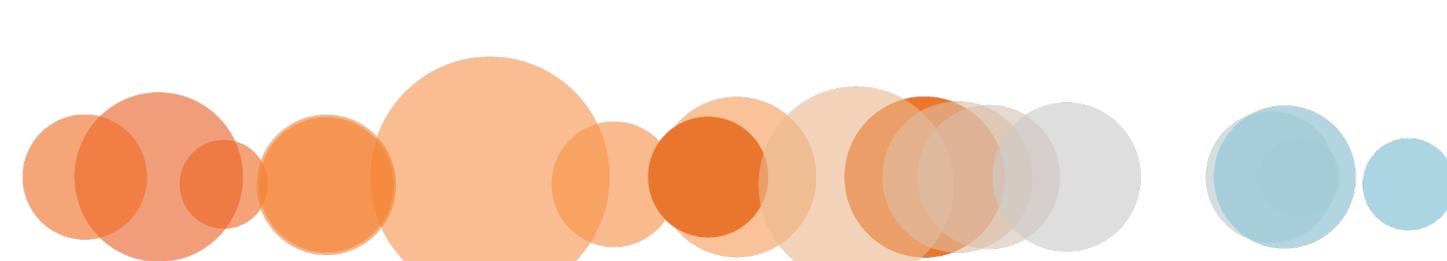
**8** States

**213,000** Employees & Staff

**22,000** Physicians

**39** Hospitals

**680** Medical Offices

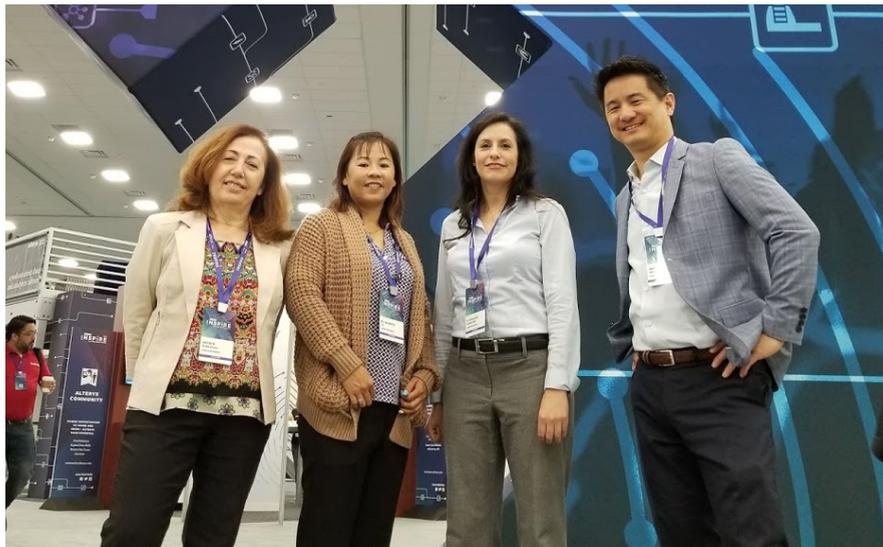


# Kaiser Permanente Orange County



## Service Area Overview

- **580,000** Members
- **900** Physicians
- **7,200** Staff
- **17** Medical Office Buildings
- **2** Hospitals



## Business Intelligence & Transformation

- Provide data and analytics solutions for the entire Orange County service area
- Inpatient
- Outpatient/Ambulatory



# Key Contributors



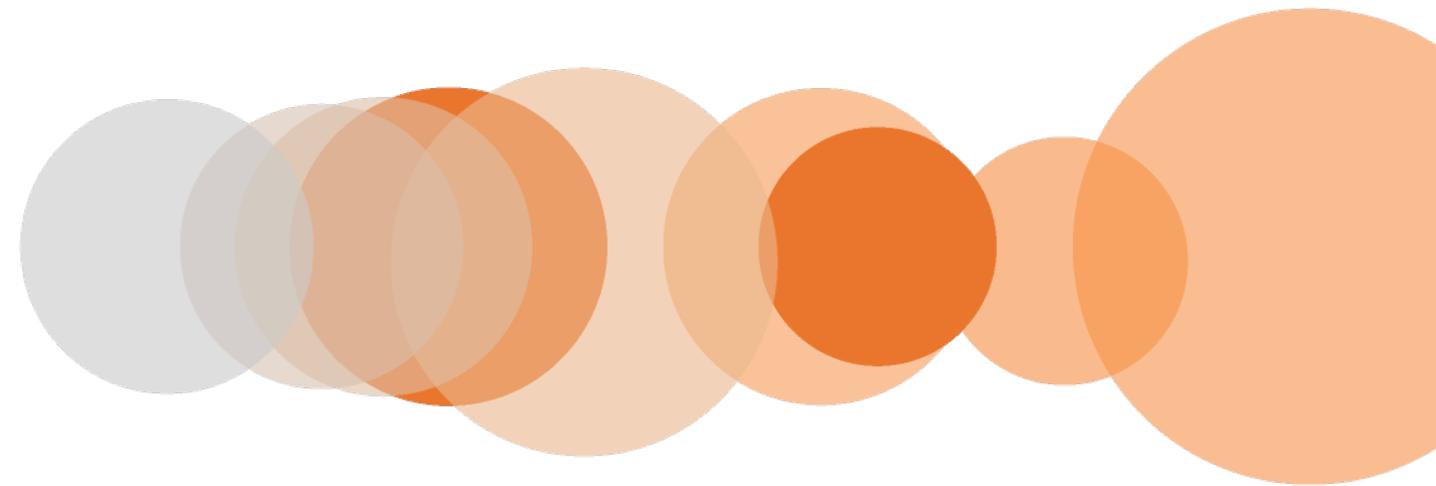
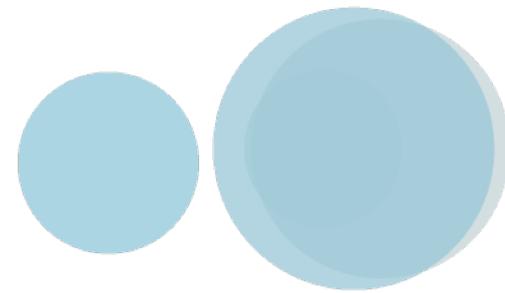
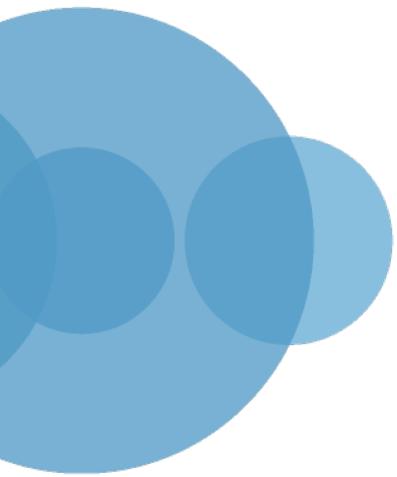
**Nancy Gin, MD**  
Orange County Medical Director

**Irene Hsieh, RNP, MSN**  
Director: Complete Care and Pain  
Management

**Kimberly Walzer, MBA, LSSBB**  
Director: Business Intelligence &  
Transformation, Strategy



# Context



# Context: The Big Picture

Mid 2016

- Diabetes management a major challenge in Orange County
  - KPOC has 42,000 diabetic members
  - A1C Control rates are stable but stagnating (75% HEDIS rating)
  - PCPs overburdened and lacking support
  - Goal: Transform “good” to “great”

Late 2016

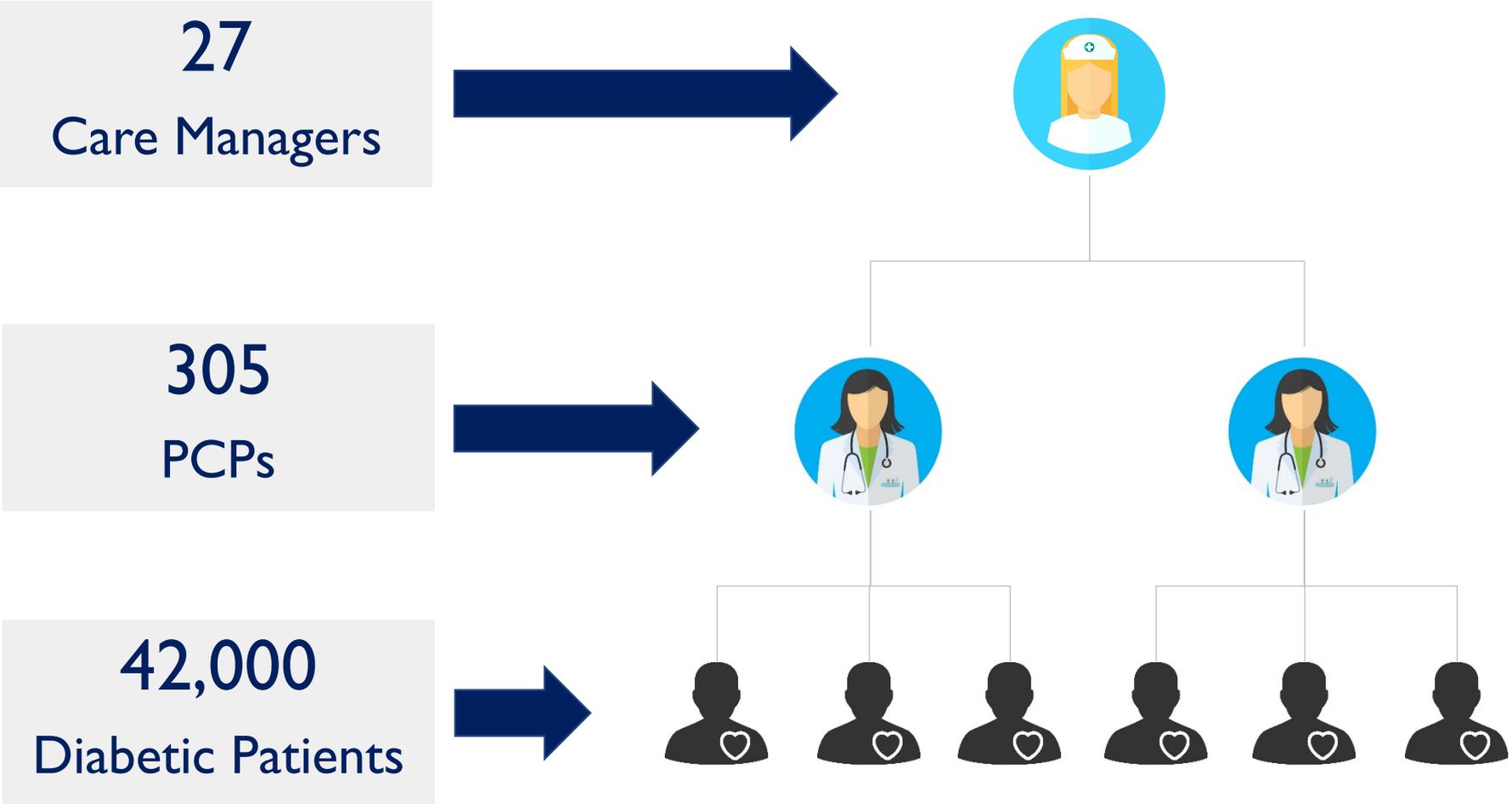
- Implement new workflows to improve diabetes care
  - Focus on engaged population
  - Tighter collaboration with PCPs
  - Closed loop workflow so nothing gets lost
- Implement productivity tracking for care managers
  - Turn-around Time
  - Momentum

# Context: But Here's the Rub

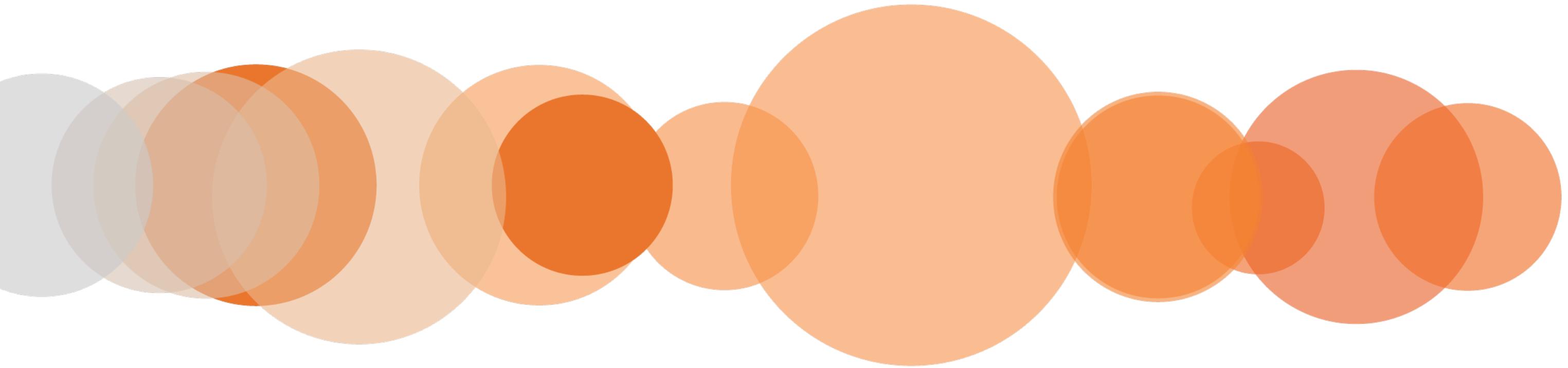
We've created new workflows and methods for diabetes care, but we can't track how we are doing!

- Regional reports are too broad, months behind, and not aligned with OC workflow.
- We lacked meaningful data that addressed process measures.
- Existing reports don't provide operational data on care manager performance.
- I don't know what to tell care managers on what they need to improve on.
- We can't tell how these changes are directly impacting outcomes.
- Care managers have a difficult time collaborating with their PCPs on panel strategy.

# The Care Manager Structure

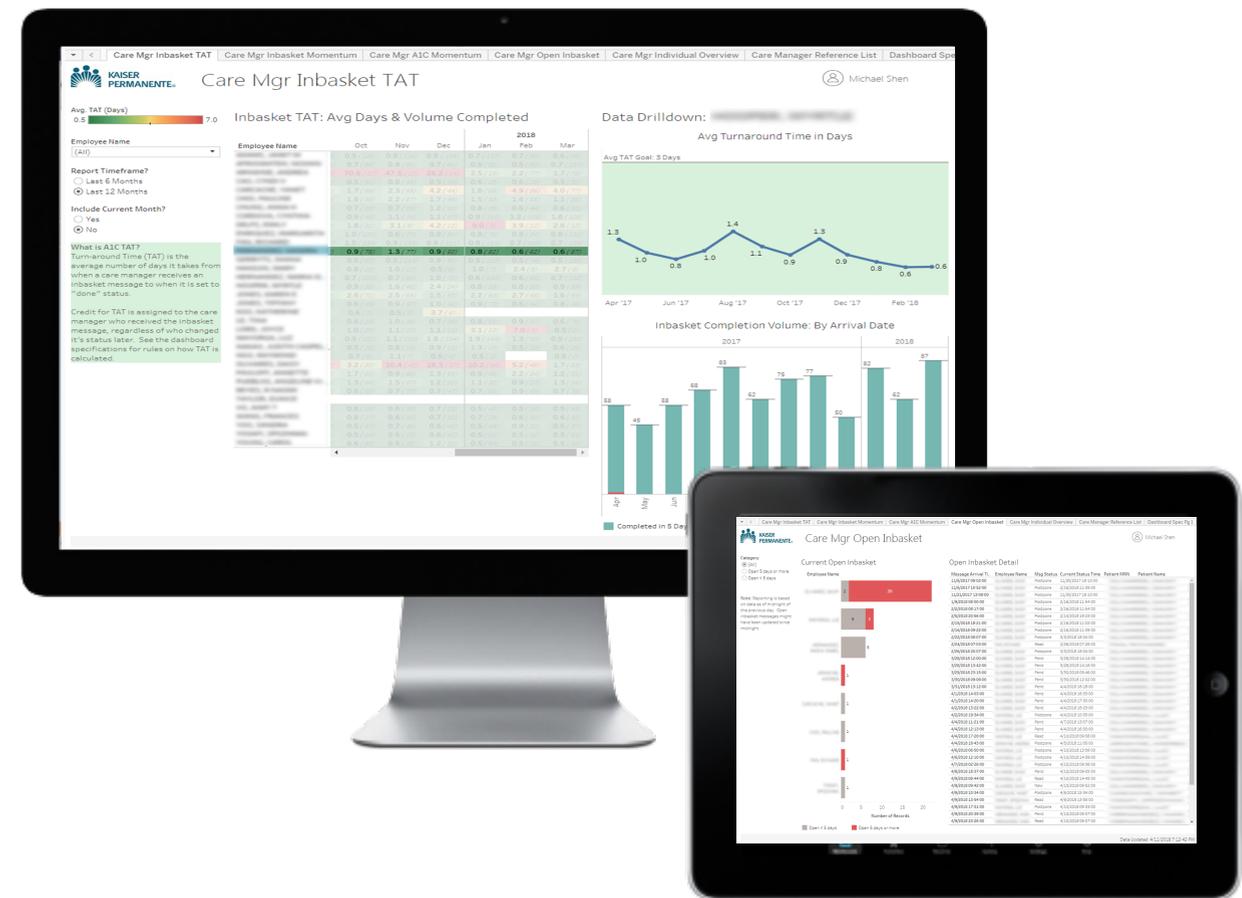


# The Target



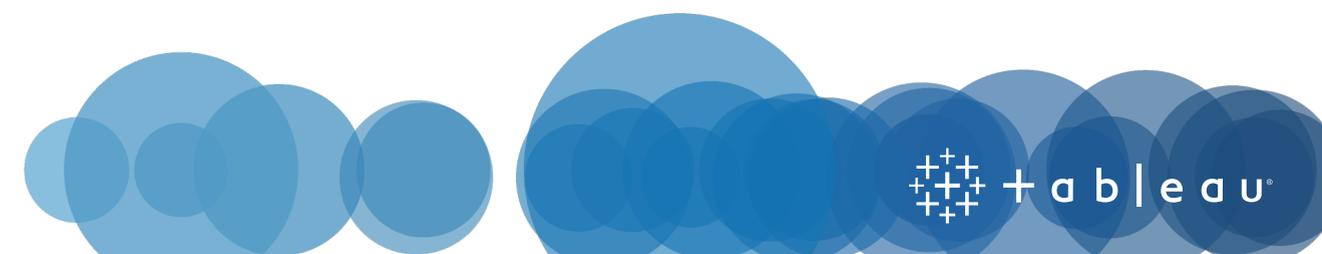
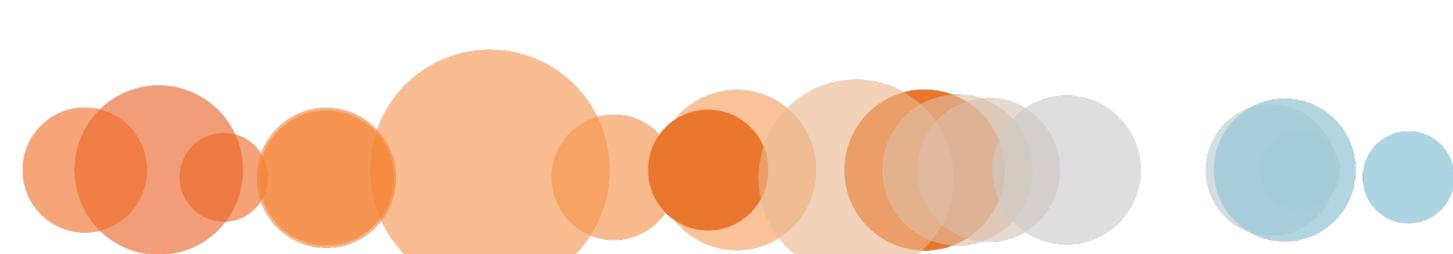
# Target: A Clear Picture

- Understand how care managers are doing operationally
  - Measure and compare care manager turn-around time and “momentum”
  - Compare care manager performance with their peers
  - Compare with past performance
- Correlate performance with patient outcomes
  - Show care manager control rates for their panels
  - Show comparison against regional goals
  - Show control rate trends over time

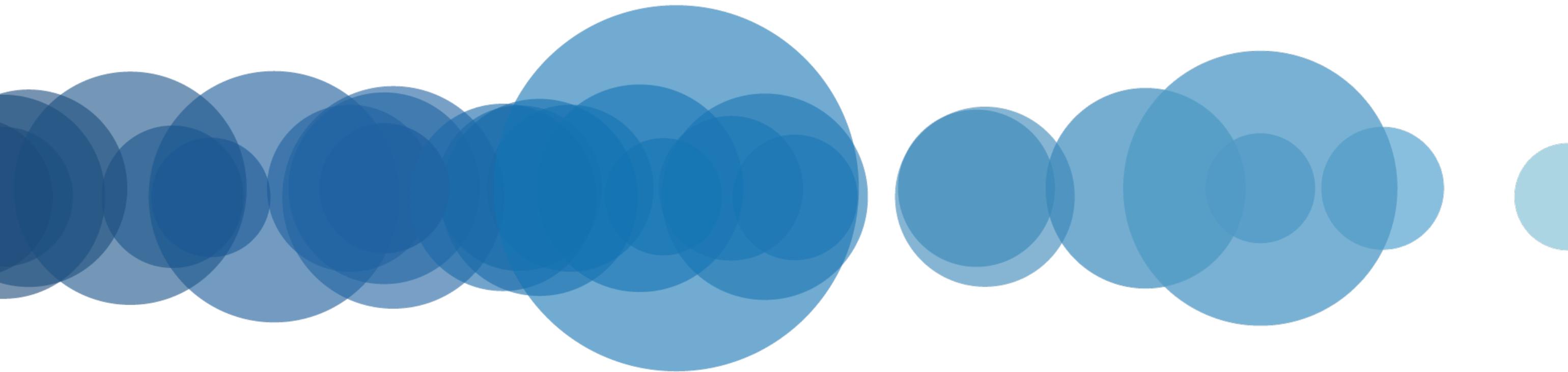


# Target: A Clear Picture

- Provide Care Managers direct feedback and actionable insight
  - Provide a clear picture of how they are doing, and where to improve
  - Provide patient level detail where they can take direct action
  - Provide tools so they can effectively collaborate with PCPs



# The Solution: Self Service Analytics



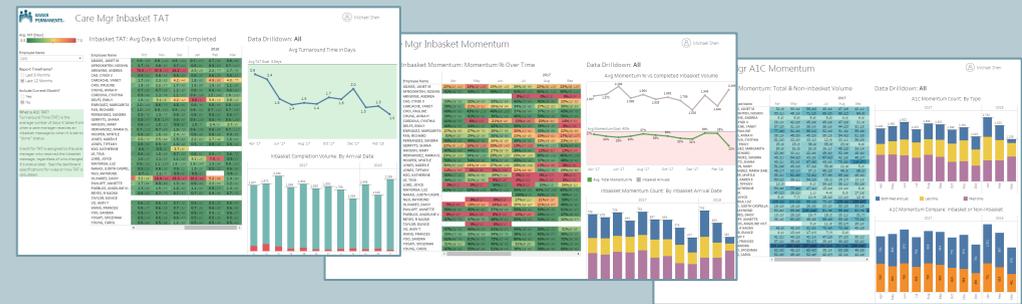
# Solution Overview



## Leadership

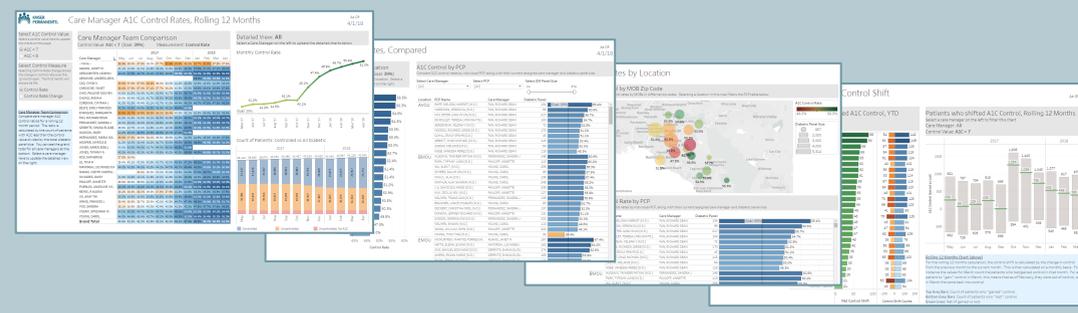
### Care Manager Operational Performance

- AIC In Basket Turn-Around Time
- AIC In Basket Momentum
- Current Open In Basket Messages



### Care Manager Outcomes Performance

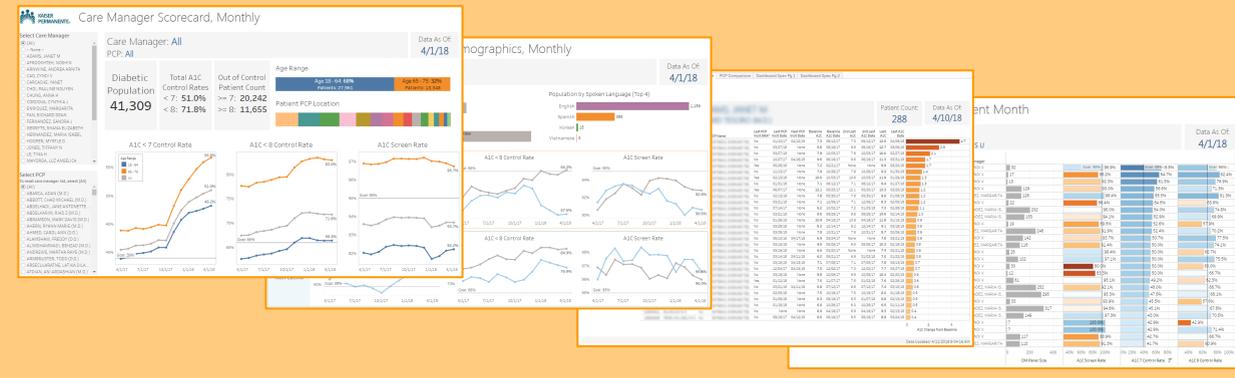
- AIC Control Rate & Change
- AIC Control Churn
- Location and PCP Comparison



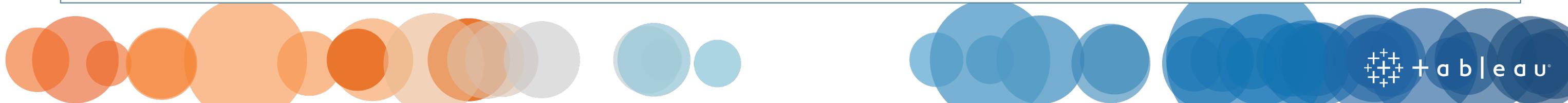
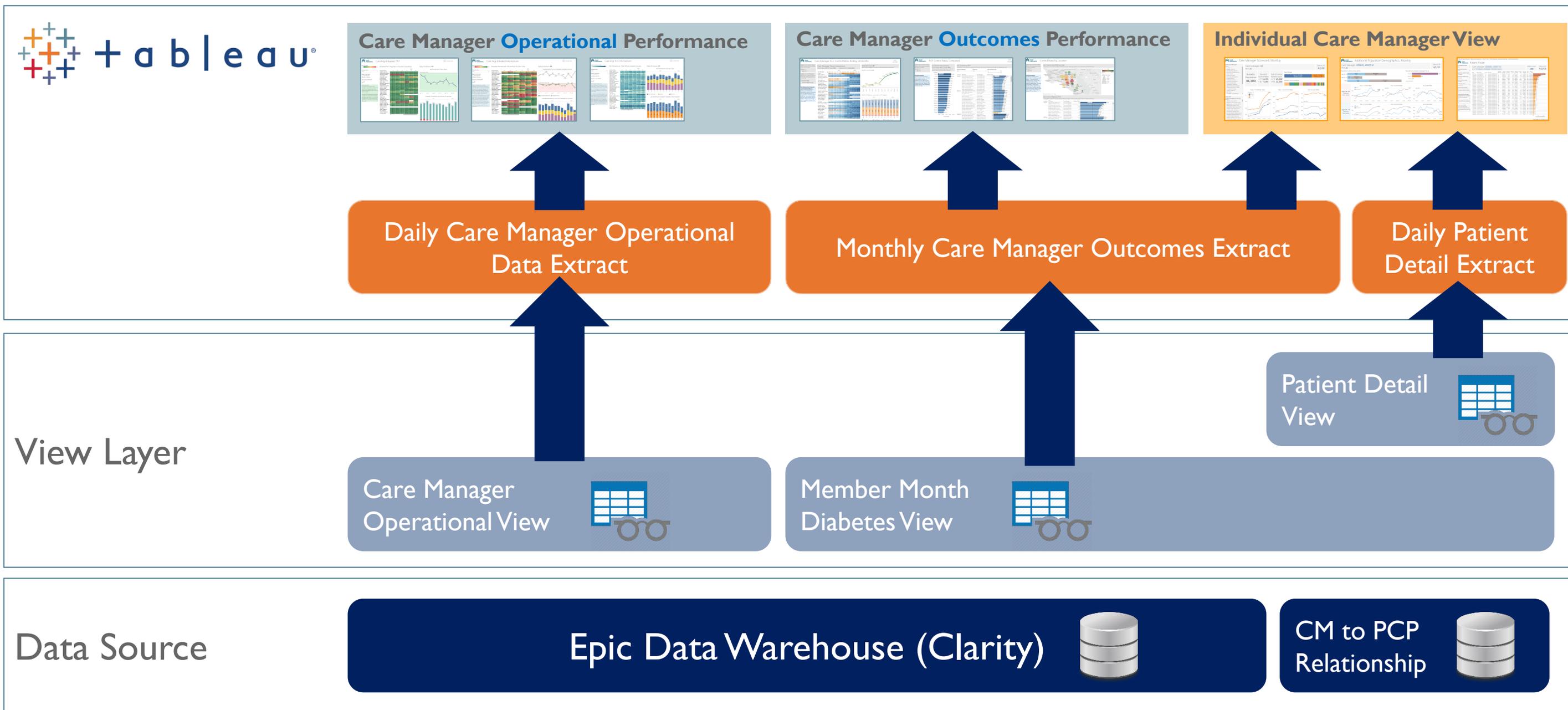
## Care Manager

### Individual Care Manager View

- Care Manager Scorecard
- Key Demographic Breakdown
- PCP Detail and Reporting
- Detail Patient Reporting



# Data Architecture and Landscape



# Solution Timeline



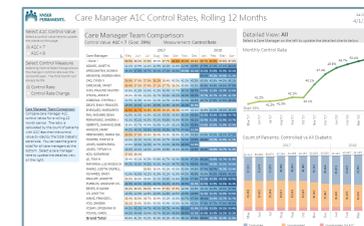
Q1 2018

Care Manager Dashboard Deploy



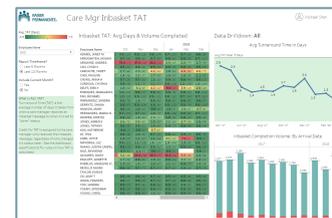
Q3 2017

Outcomes Performance Dashboards Deploy



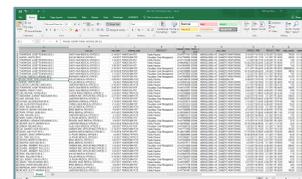
Q1 2017

Operational Performance Dashboards Deploy



Q1 2017

Ad Hoc Operational Reports



Q4 2016

Initial Request for Data

# Operational Performance Dashboard

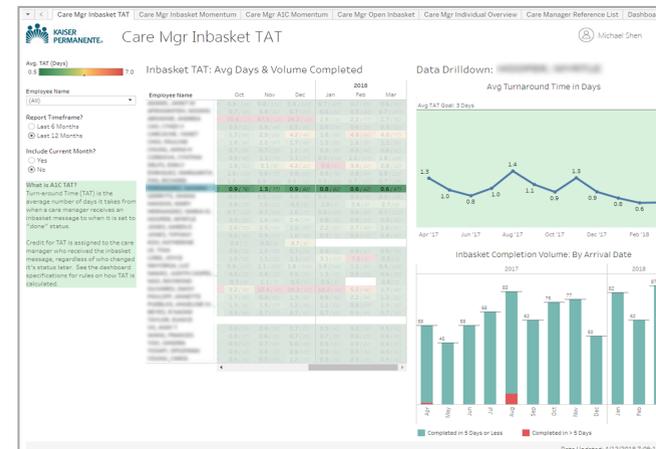
## Turn-around Time

### Use Case

- Unclear how quickly care managers respond to lab results
- View monitors monthly turn-around times and volumes

### Impact

- Leadership can monitor monthly turn-around time performance
- Review monthly trends and compare care manager performance



## Momentum

### Use Case

- Unclear how often care managers are acting off of lab results
- View monitors monthly rates for medication and lab orders

### Impact

- Leadership can monitor monthly momentum performance
- Review monthly trends and compare care managers



## Open In-basket Items

### Use Case

- Identify bottlenecks in incomplete in-basket messages.
- View monitors daily open lab results

### Impact

- Visualize which care managers have the most open lab results
- Drill down to see individual labs



# Outcomes Performance Dashboard

## Care Manager Outcomes

### Use Case

- Relate care managers to panel diabetes health
- Compare care manager diabetes panel control rate

### Impact

- Show 12 month trend compared against all care managers
- Drill down to 12 month trend and panel size and breakdown.



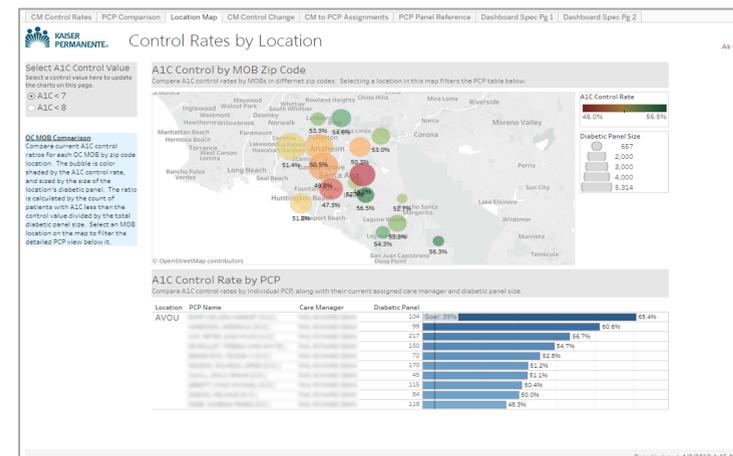
## Control Rates by Location and PCP

### Use Case

- Understand demographic context for diabetes control
- Compare diabetes performance by location

### Impact

- Relate A1C Control by location
- Drill down to PCPs at each location



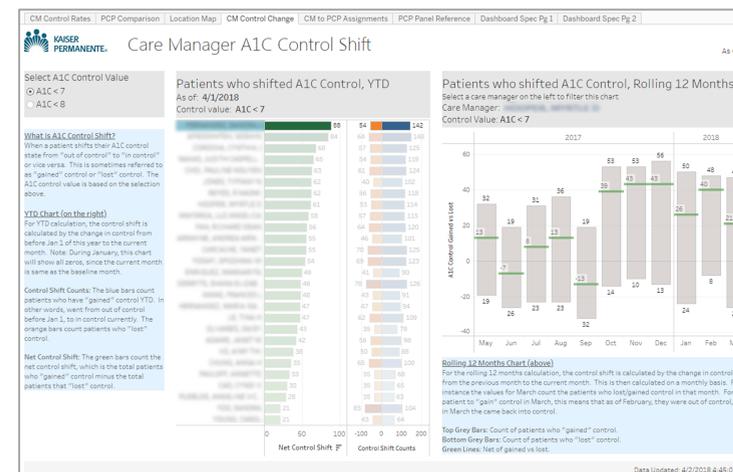
## A1C Control Variance

### Use Case

- Evaluating outcomes by control rate alone can be misleading
- Determine outcomes performance by population variance

### Impact

- Count of diabetic patients losing control vs gaining control
- Drill down to view monthly churn



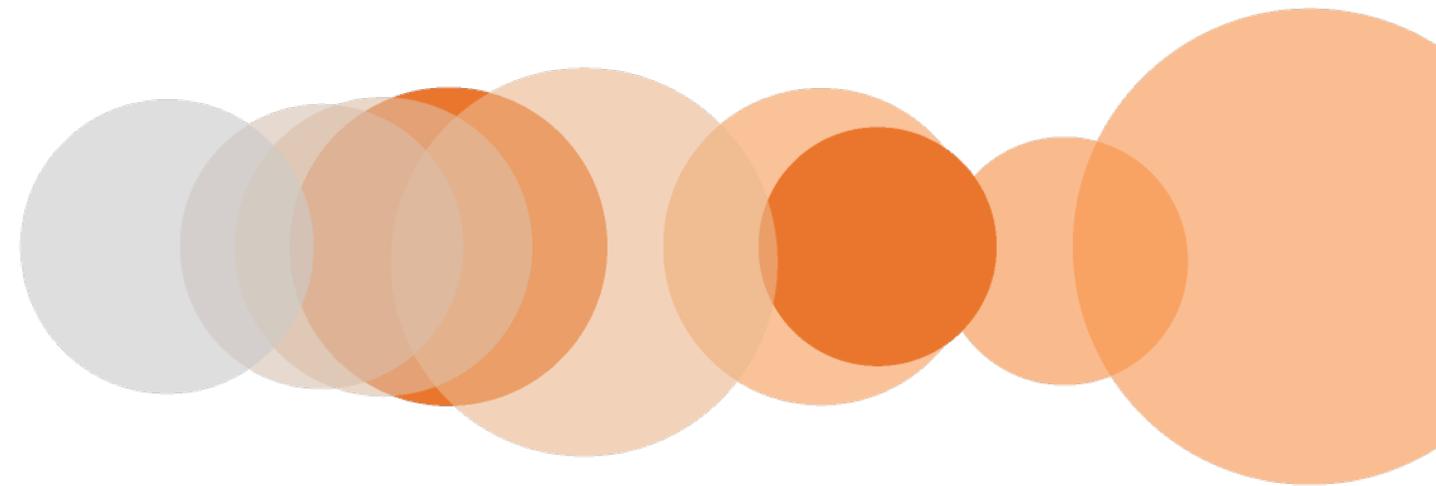
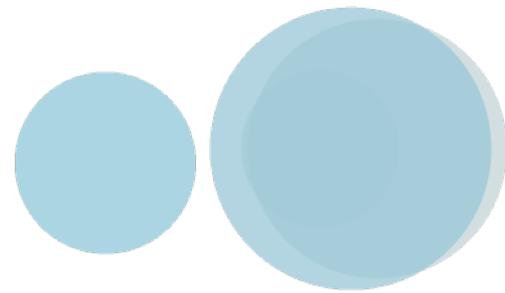
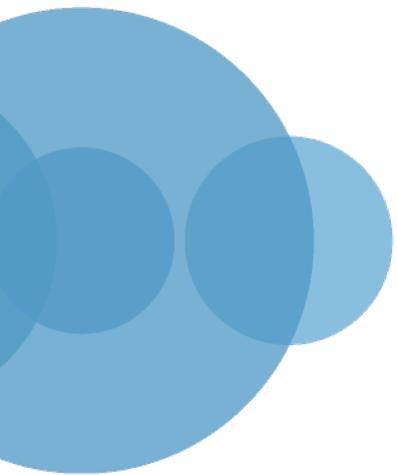


# The PCP Meeting

- Care managers have monthly or quarterly meetings with their PCPs
- They used to spend a lot of time gathering data with limited info to share.
- Now, they print the 4 tabs to share with their PCPs
- They use the data to plan strategy and focus for diabetes patients.

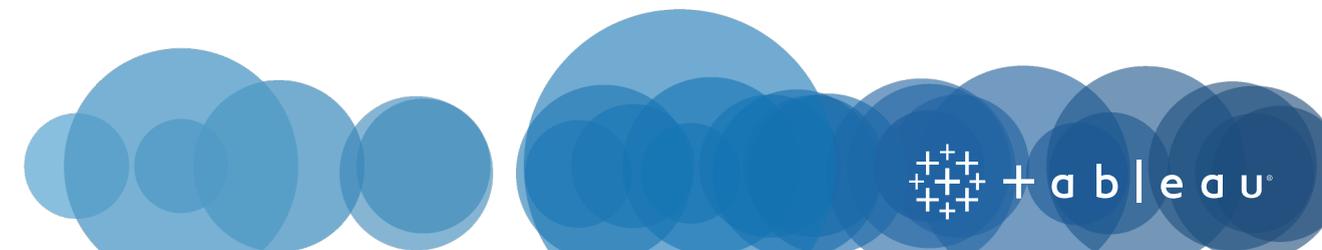
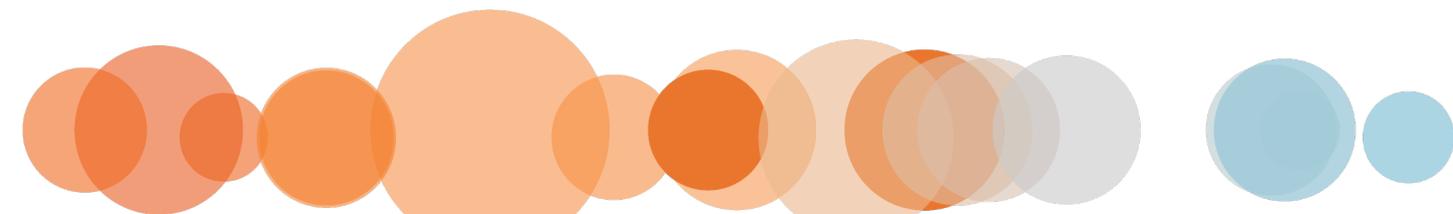


# Results



# Lessons learned

- Understanding workflow and defining business requirements was key.
  - What is your process for care management?
  - What are you trying to improve?
- Get the data right first!
  - Ad hoc report generation
- Talk with everyone, including the frontline.
- The customer is not always right.



# Operational Improvements and Testimonial

## Operational Improvements

- **Time Savings:**
  - Eliminate 12 hours/month time spent collecting data and building reports
- **Care Manager Performance:**
  - Reduced AIC In-basket message turn-around time from > 5 days to < 1 day
  - ~10% Increase in message volume completion
  - Maintaining average 40% avg momentum

## On transparency to performance

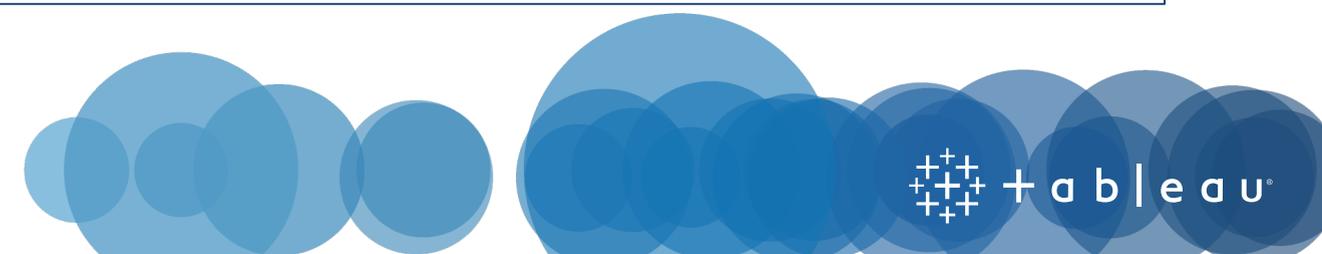
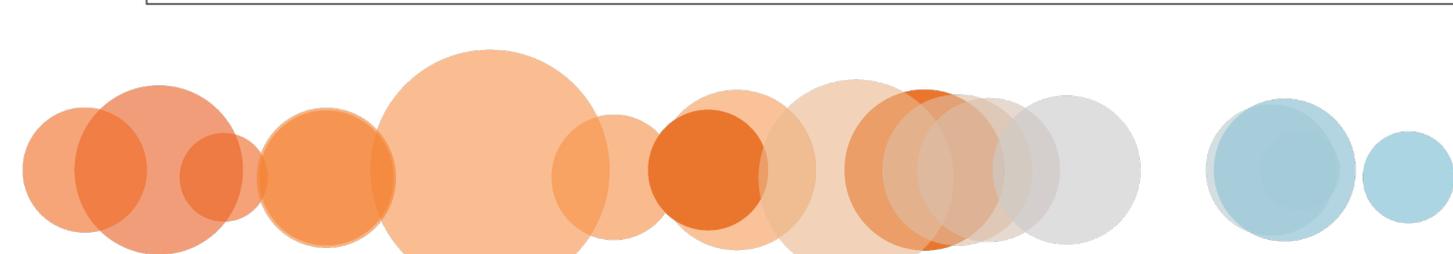
*“...it is one of the most important tools that we have to **hold care managers accountable and improve the quality of lives for our diabetic members.**”*

**Irene Hsieh, RNP, MSN**  
Director, OC Complete Care and Pain Management

## On direct and actionable insight

*“**By visualizing and pinpointing trends, I can address issues in my diabetic patients before they worsen.**”*

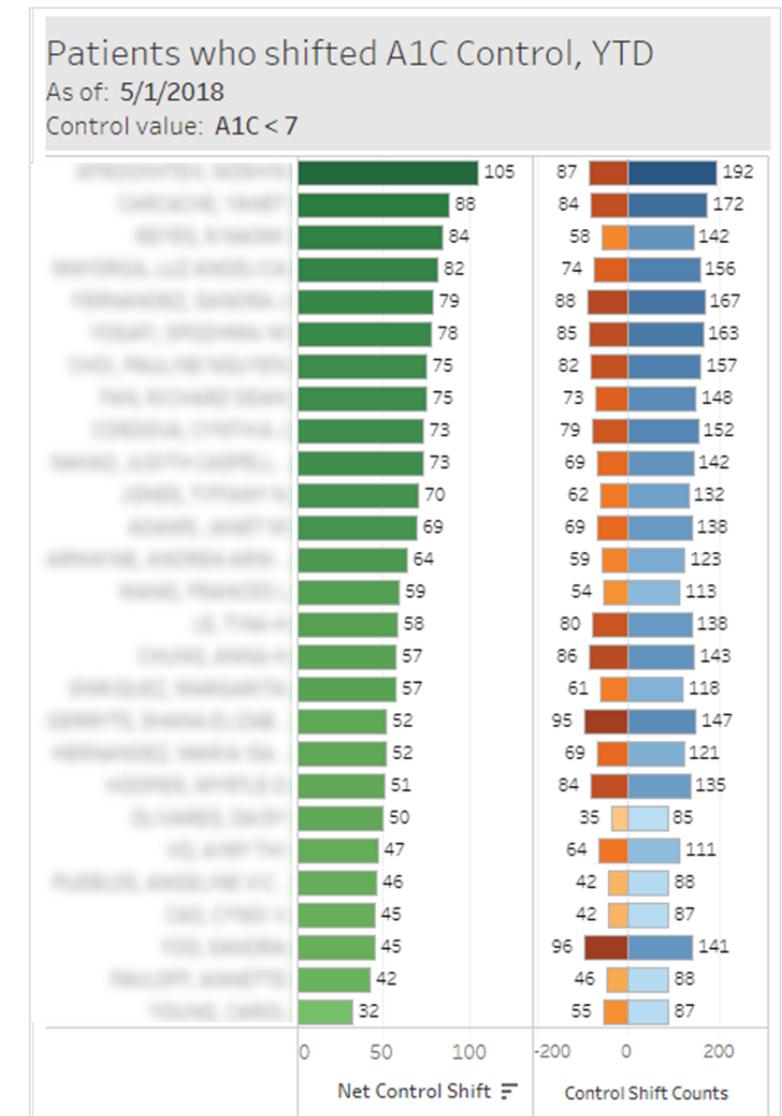
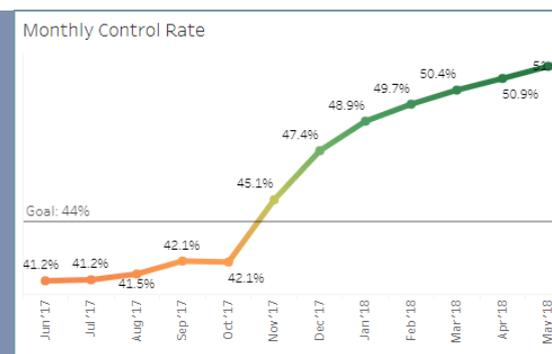
**Maria Hernandez, RN, CDE**  
Care Manager



# Measurable Outcomes

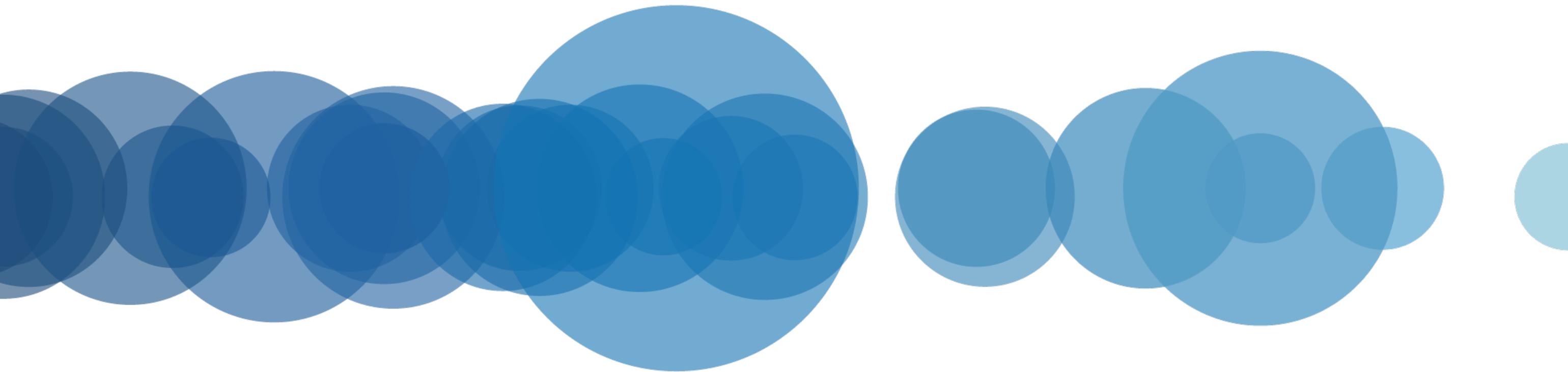
- In 2017, A1C < 7 control rates improved by **7%**
- That's a net shift of **3,000 diabetics** that are now in control
- This equates to an estimated annual cost savings of **\$1.5 million\***
- Beyond the money, that's **thousands of lives positively affected**
- 2018 YTD control rate improvement: **2.6%** (as of 5/1/2018)

In 2017, for the first time ever, Kaiser Permanente Orange County achieved the highest rating (90th percentile) in HEDIS NCQA's glucose control rating.



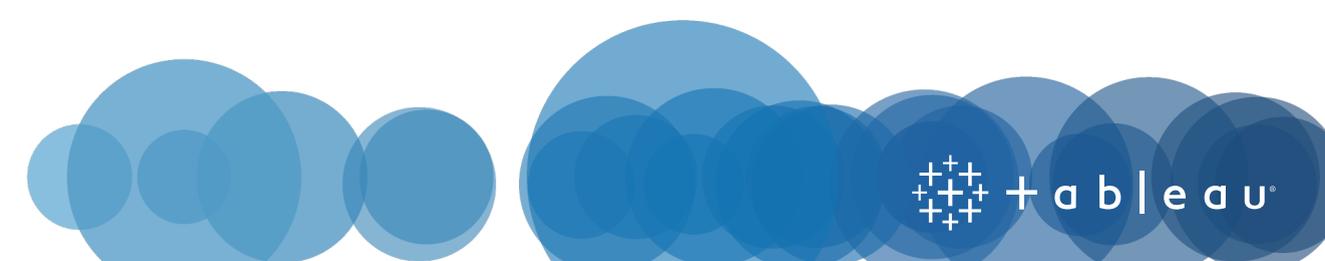
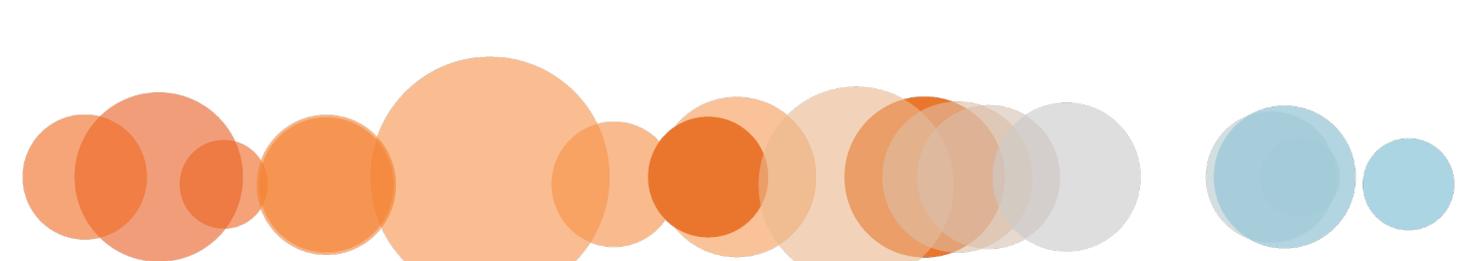
\* Value in Health (2013): Estimated Coast Savings Associated with A1C Reductions in a Large US Commercial Health Plan

# Next Steps



# Next Steps

- Improve data extraction architecture
  - Replace view with data mart
  - Should improve performance & reliability
- Expand operational metrics
  - Support coordinator TAT and work volume
  - Expand analysis to locations
- Provide panel metrics directly to PCPs
  - PCP centered panel dashboard
- Support other areas to implement
  - Spread these dashboards to all of SoCal



A black and white photograph of a woman with glasses, seen in profile, holding a white coffee cup. She is looking towards a laptop screen in the background. The scene is set in an office or workspace. The word "Questions?" is overlaid in blue text on the right side of the image.

Questions?



# Improving Diabetes Care with Self Service Analytics



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