



## New Orleans Business to Business Forum on Healthcare Solutions



Louisiana



**GREATER NEW ORLEANS**  
INC  
REGIONAL ECONOMIC DEVELOPMENT



# Innovation to Improve Service

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Chief Medical Officer



New Orleans Business to Business  
Forum on Healthcare Solutions

# Delivery System Reform: Better, Smarter, Healthier



**Pay Providers**



**Deliver Care**

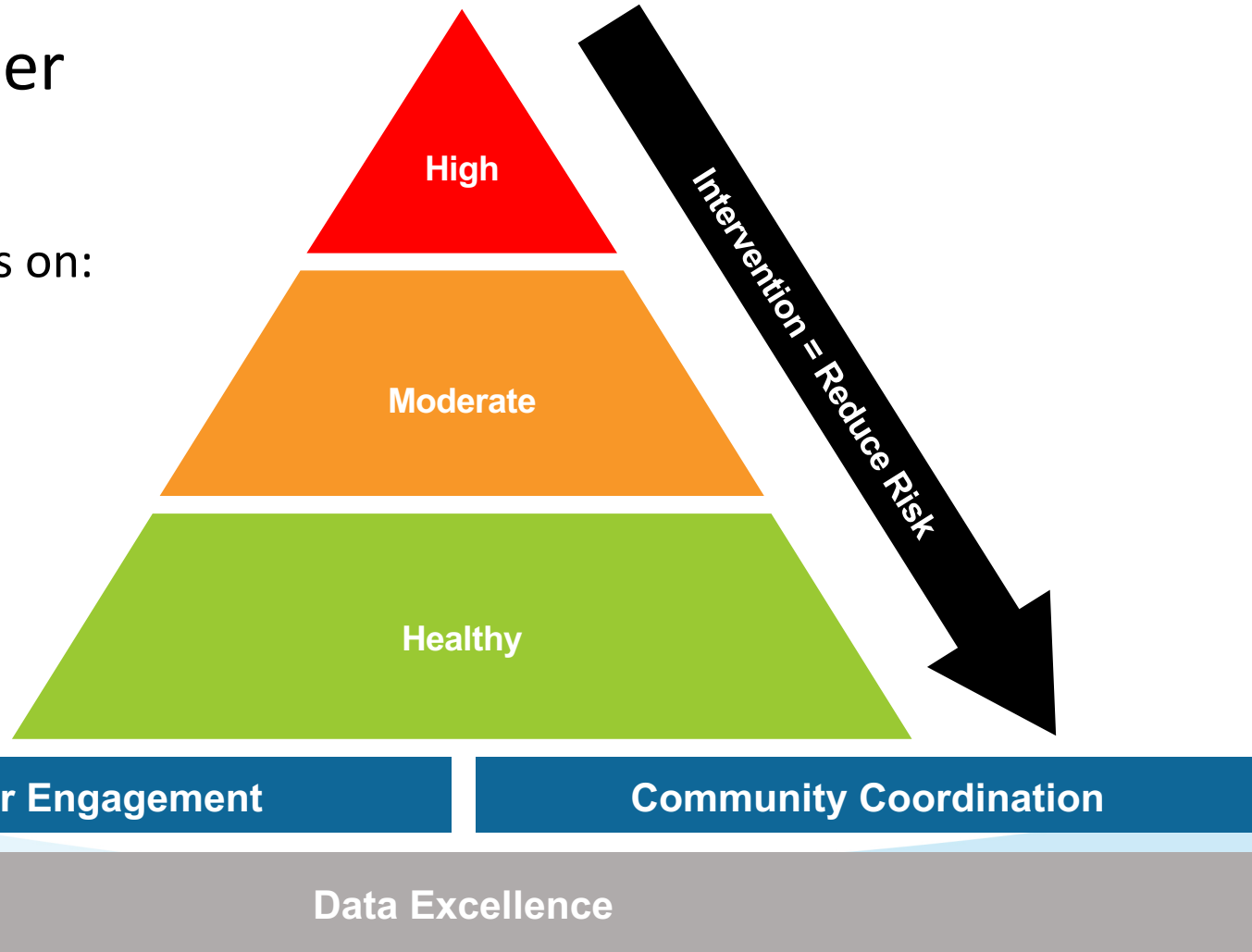


**Distribute  
Information**



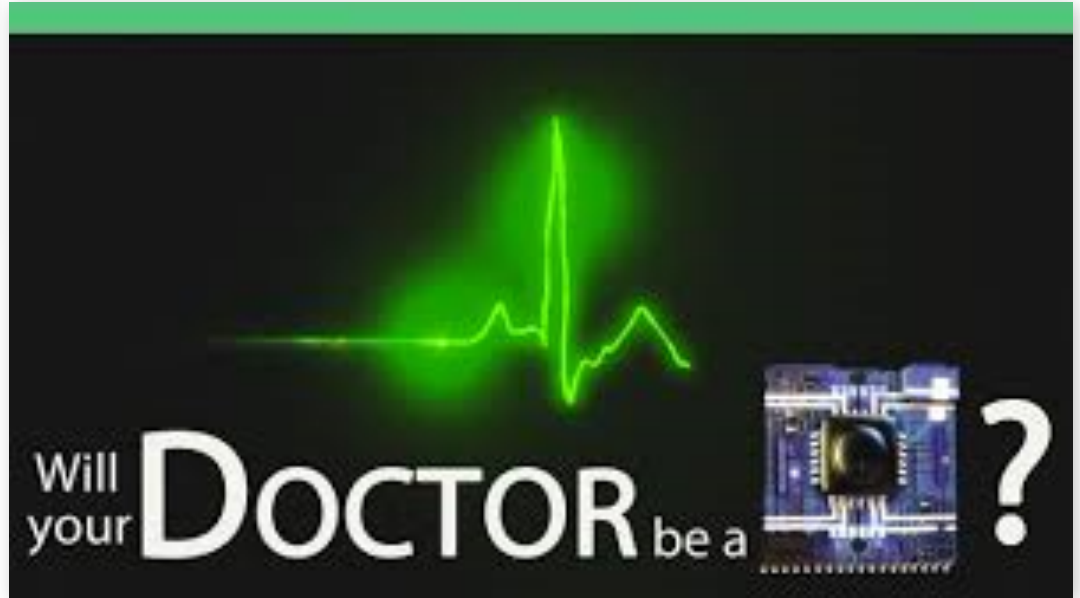
# Optimal Member Engagement

- Divide members on:
  - Needs
  - Health Status
  - Risk Level



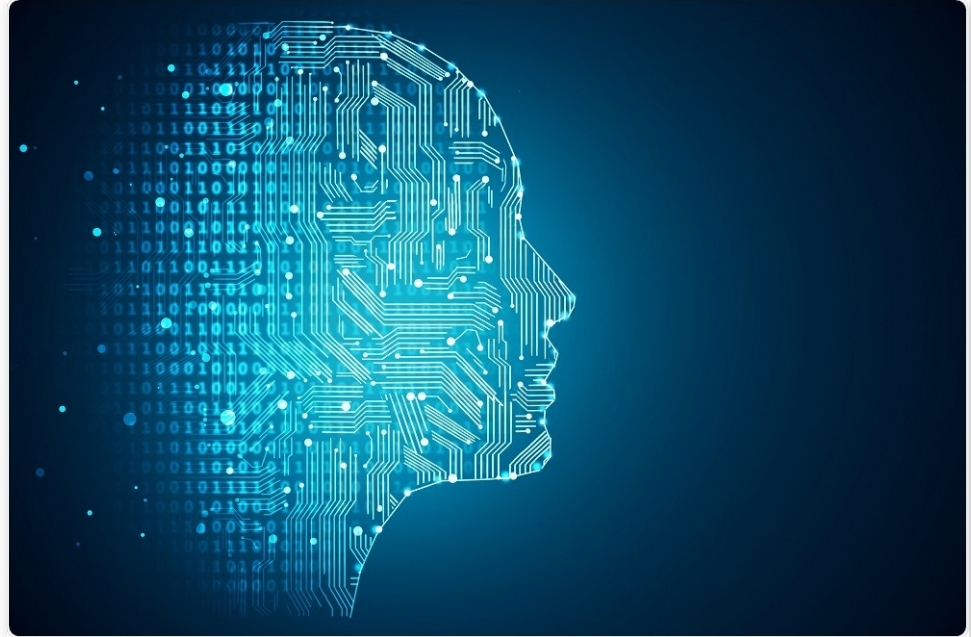


# Will Artificial Intelligence Change Healthcare?



# Artificial Intelligence vs. Machine Learning

- Natural Language Processing
- Image/Pattern Recognition
- Neural Networks
- Ensemble
- Predictive Analytics

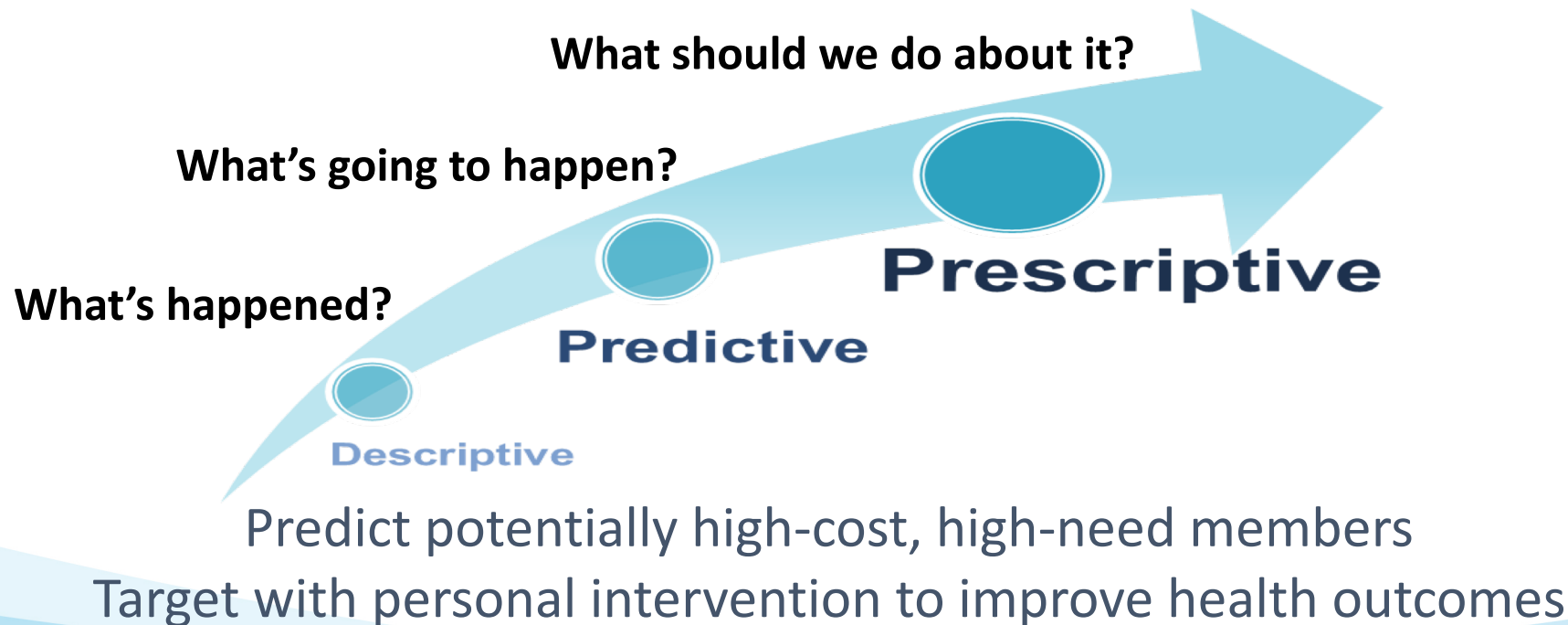


# Predictive Modeling and Machine Learning

- Predictive modeling uses **data mining** and **probability** to forecast outcomes
- Each model has a number of **predictors** = variables likely to influence future results
- Collect data for predictors, **formulate statistical model**
- Models can take different forms
- **Validate** predictive model and revise as needed

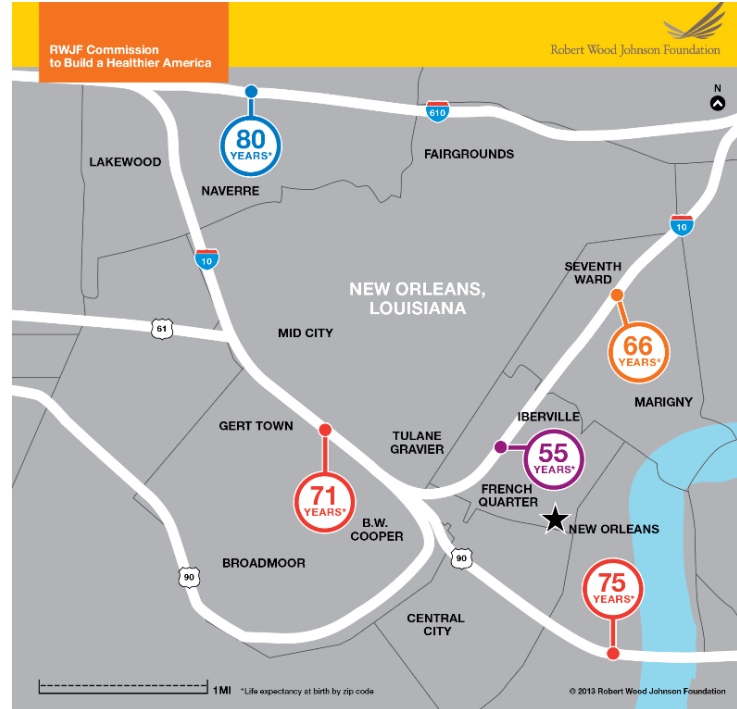


# In-House Advanced Analytics: A Smarter, More Proactive Approach

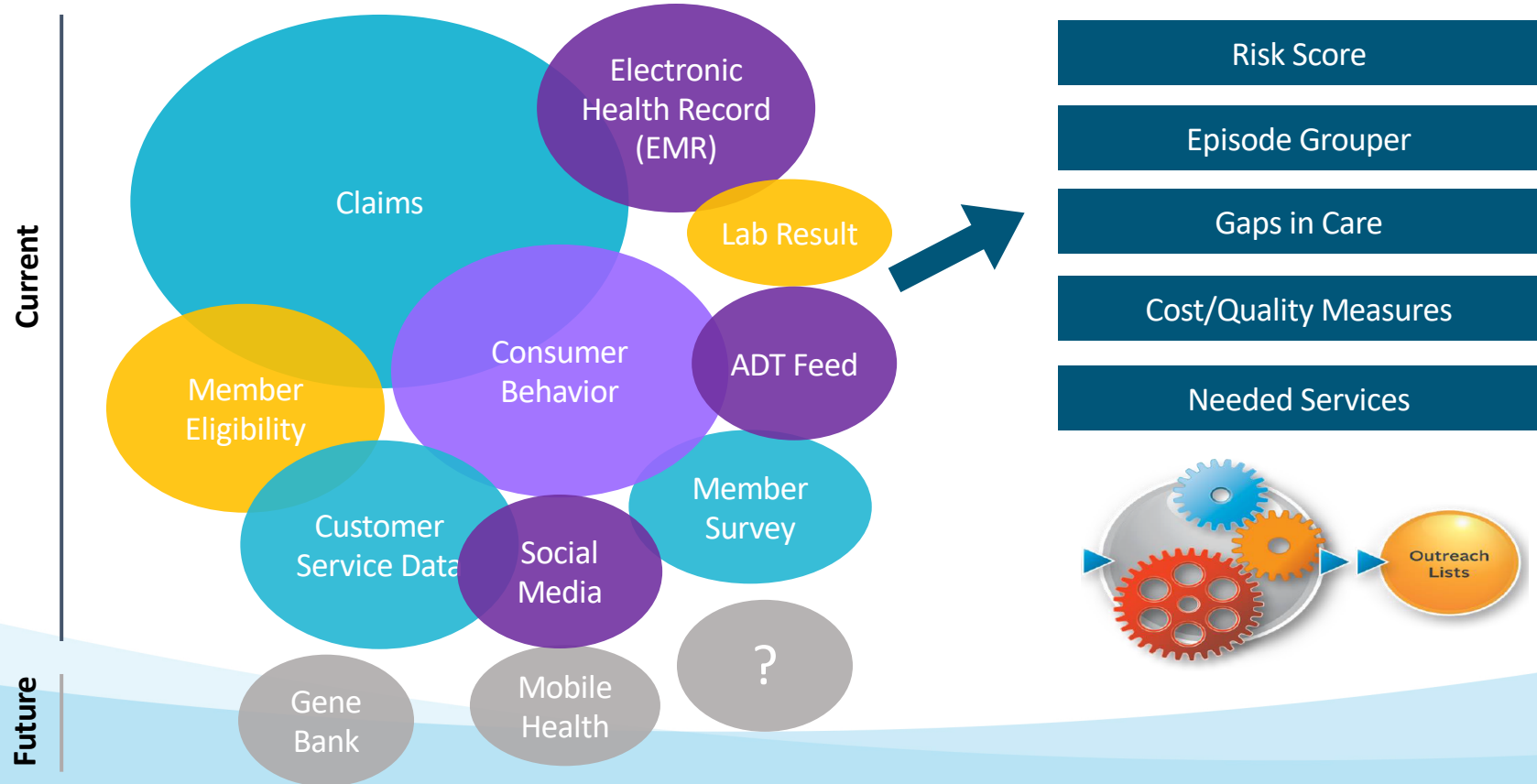


# Multiple, Complex Issues Affect Quality

- There are **New Orleans neighborhoods with lower life expectancy than Afghanistan!**
- Health disparities a key factor.



# What Data Should Power Our Learning?



# The Model in Action

## Goals

- ID high-risk Individuals
- Prioritize targeted interventions
- Drive Care Management referrals, outreach

## Results

- High rate of engagement!
- Reaching 40-50% members referred; engaging 70-80% reached
- **1.5x better than commercial model!**

## Benefits to Members

- Potentially avoid very costly admissions
- Improved quality of life

## Upcoming Model Examples

- Risk of admission
- Risk of high-cost claimant
- Condition-specific risk of hospitalization

# Call Center Analysis

- Most-used negative words across risk categories (adjusted for population size – terms per 1,000)
- Color scheme ranked according to frequency
- **Strong evidence that complaints from high-acuity members more negative, complex, distressed**

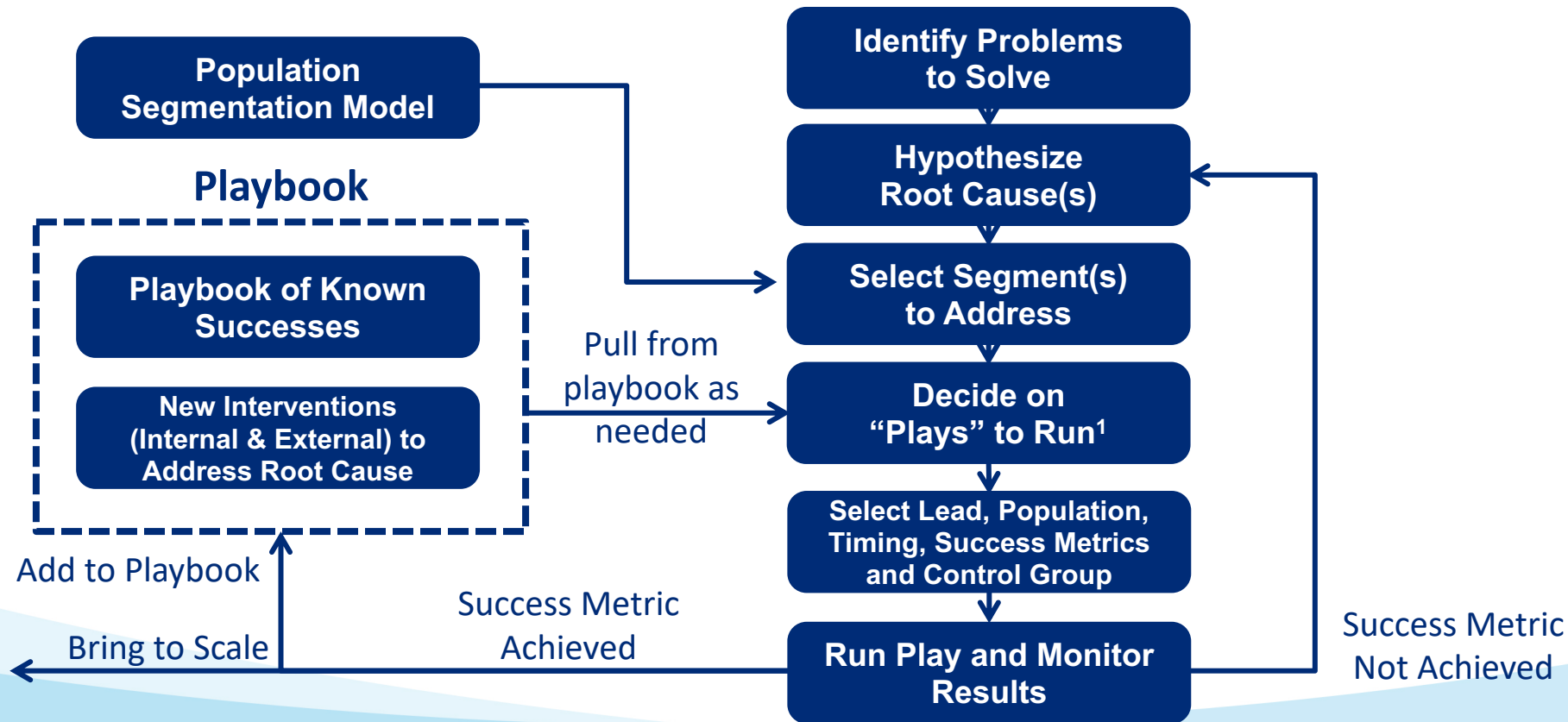
Term	Risk Cat Desc				
	Healthy	Stable	At Risk	Struggling	In Crisis
upset	198.7	238.4	274.6	292.2	315.3
denied	77.3	95.3	92.4	105.6	129.2
issue	64.8	75.4	75.8	87.2	87.7
dissatisfied	26.4	38.1	42.7	56.1	57.6
unable	38.5	43.4	44.0	45.1	51.9
issues	48.2	45.3	43.8	46.6	50.3
wrong	47.9	44.6	50.0	46.8	46.7
inconvenience	28.7	22.6	31.2	30.8	41.4
incorrect	60.2	48.6	56.5	50.5	39.3
frustrated	24.9	29.0	28.7	29.4	37.9
error	21.4	25.3	25.8	26.0	32.6
concerned	25.8	27.9	25.9	24.5	31.8
confused	14.9	20.4	20.0	28.1	31.3
problems	13.9	17.5	19.9	20.1	28.0
trouble	17.9	18.5	22.8	23.5	26.8
denial	12.5	9.1	16.0	16.3	24.7
problem	17.0	19.6	25.8	22.6	24.7
hard	9.5	10.6	12.0	18.2	24.5
denying	17.4	21.2	18.3	21.7	23.6
confusing	4.6	7.3	9.1	17.0	21.5
rejected	16.5	17.0	16.7	21.2	18.9
dissatisfaction	14.6	15.0	21.7	19.7	18.3
delinquent	14.4	15.5	15.1	14.8	16.8
hung	13.5	20.0	17.2	20.3	16.8
sorry	17.9	19.4	18.8	17.7	16.3



# Risk of Hospitalization Model

- Blue Cross implemented machine-learning based model to make member referrals to Care Management Division, by identifying members at high risk of hospitalization within the next six months.
- Model has very high level of accuracy compared to commercially available models; combines machine learning with predictive analytics for real-time, actionable information.
- Clinical staff can intervene sooner with health coaching, education and self-care support.
- Can potentially mitigate the clinical event, save lives, reduce costs.

# Clinical Model Improvement Framework



<sup>1</sup>Note: Some may overlap with MAP activities and/or active projects

# Outpatient Home Monitoring: Hypertension



# Our Solution: Quality Blue

- Alternative Payment Model
- Different paths for PCP practices of different sizes to join (ACO, outcomes-based, process-based), earn value-based reimbursement
- Encourages, supports PCP-patient relationship

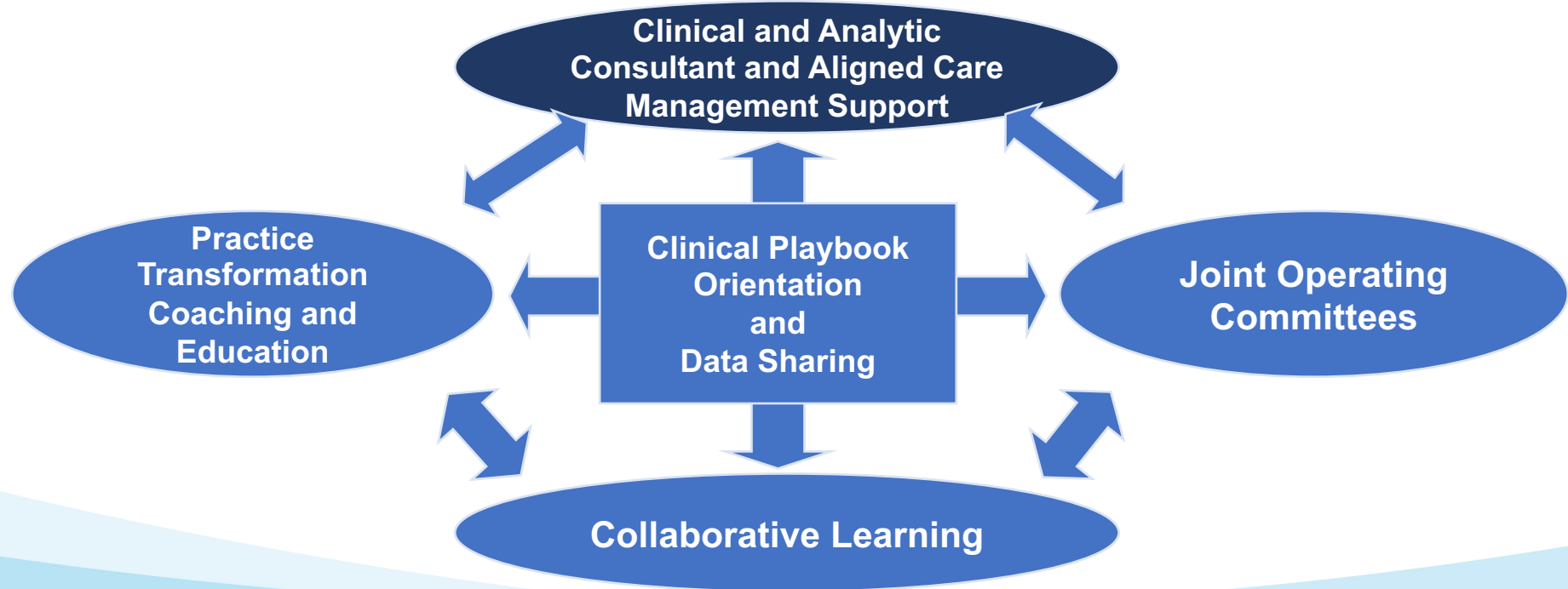
**HOW CAN PLANS BRING VALUE TO INDIVIDUALS & BUSINESSES?**



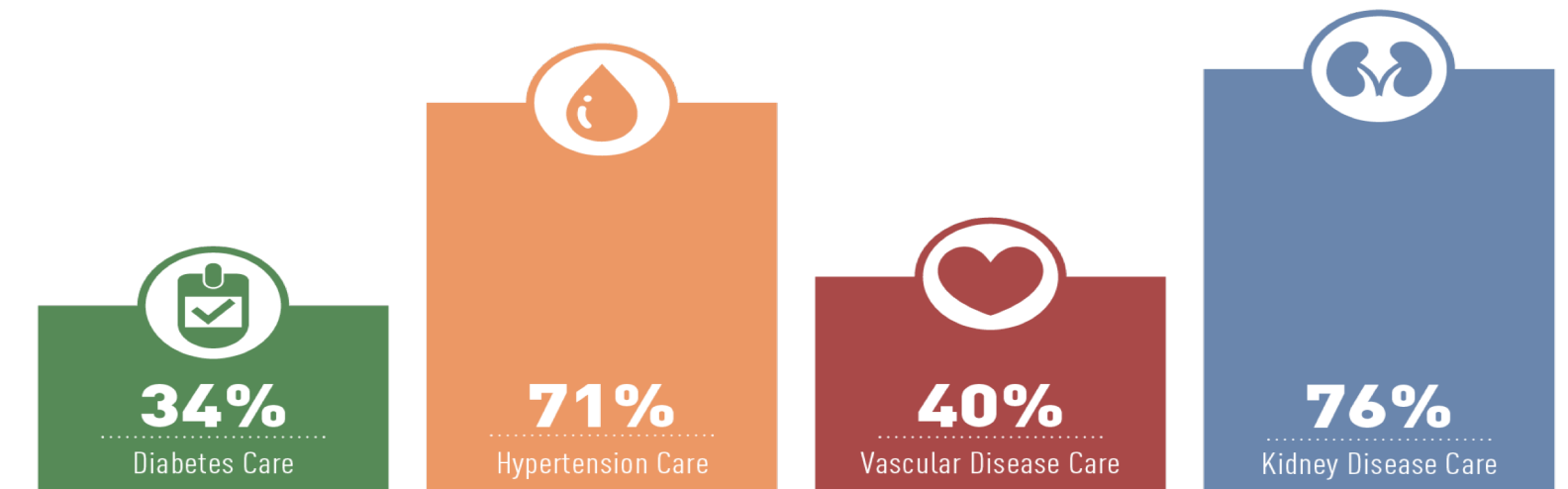
# Program Evolution: *Model Components*

Administrative-Clinical Advisory Committee

Primary Care Advisory Board



## QBPC IS GETTING BETTER HEALTH RESULTS



SOURCE: QBPC Quality Measures data through September 2017.

# ACO Success Stories

- Y3 – enrolled ACOs saved 4.26% total cost of care
- Most successful savings = 12.21%
- **ACOs best at boosting health outcomes for their attributed members had the highest savings!**



# Machine Learning as Backbone

- Facilitate learning health ecosystem:
  - Use data from claims, providers, patients, state registries, public data and research evidence to tailor solutions that support high-quality, personalized care.
- Combine and analyze digital information, promote high-quality care, predict members' needs in advance of illnesses or catastrophes:
  - Predictive analytics
  - Care Management outreach
  - Targeted member engagement





# Discussion

