GA HIMSS
The Predictive Bull’s-eye: Defining and Measuring Predictive Analytic ROI

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Learning Objectives

Describe the role that predictive analytics play in the emerging value-based landscape

Define the "predictive analytic paradox"

Apply a framework for understanding and determining predictive analytic ROI
Why all the hype around predictive analytics?

The way we define value is changing

Payment is linked to performance

Prevention is key to meeting goals

The “Prevention Gap”
Predictive Analytics: Technology that uses machine learning – also called artificial intelligence – to account for thousands of variables and make more precise and actionable predictions.
What makes predictive analytics better than what we have today?

Accuracy  
Applicability  
Optimization  
Efficiency  
Usability
The Predictive Analytic Paradox

The process of applying an intervention obscures the value of the prediction.
The Predictive Analytic Paradox

By intervening based on predicted risk, you fundamentally change the outcome and what you are able to observe.

High-Risk Individual → Interventions Applied → Individual Stays Well

Individual was never exposed

Intervention worked
How To Determine Predictive Analytic ROI

Understanding Accuracy > Translating Accuracy > Setting Goals > Aligning to the Triple Aim
Understanding Accuracy

What is the accuracy of the predictive engine when applied to your own data?

If 100 people are predicted to be readmitted and 35 are readmitted, then the model has a 35% accuracy rate.
Translating Accuracy

Intervention Effectiveness

- 20%
- 40%
- 60%

Pure Potential (100%)

In our example, if you were able to stop all 35 readmissions, we would achieve the “pure potential” of the solution.
Translating Accuracy

Driving effective interventions

Current capacity to perform the intervention

Ability to drive adoption of the predictive solution

Effectiveness of the intervention for a specific patient

Patient’s willingness to engage with the intervention
Setting Goals

- What if you did not have predictive analytics?
- How your organization is doing with applying an intervention
- Potential intervention effectiveness

Where you could have been
Where you are today
Where you could be
Aligning to the Triple Aim

- Improve Health
- Lower Costs
- Better Care

Triple Aim

Understanding Accuracy
Translating Accuracy
Setting Goals
Aligning to the Triple Aim
What Predictive Analytic ROI Looks Like

Results for one provider:
• Achieved a 32% drop in readmissions
• Avoided $4,894,400 in cost
• Saved 2,331 LOS days
Driving Predictive Analytic Success

Leadership
- Engage the right stakeholders

Project Owner
- Select a key member who can drive the project

End users
- Get users excited and committed
Next Steps

- Determine risk areas
- Prioritize for predictive analytics
- Define your ROI metrics