



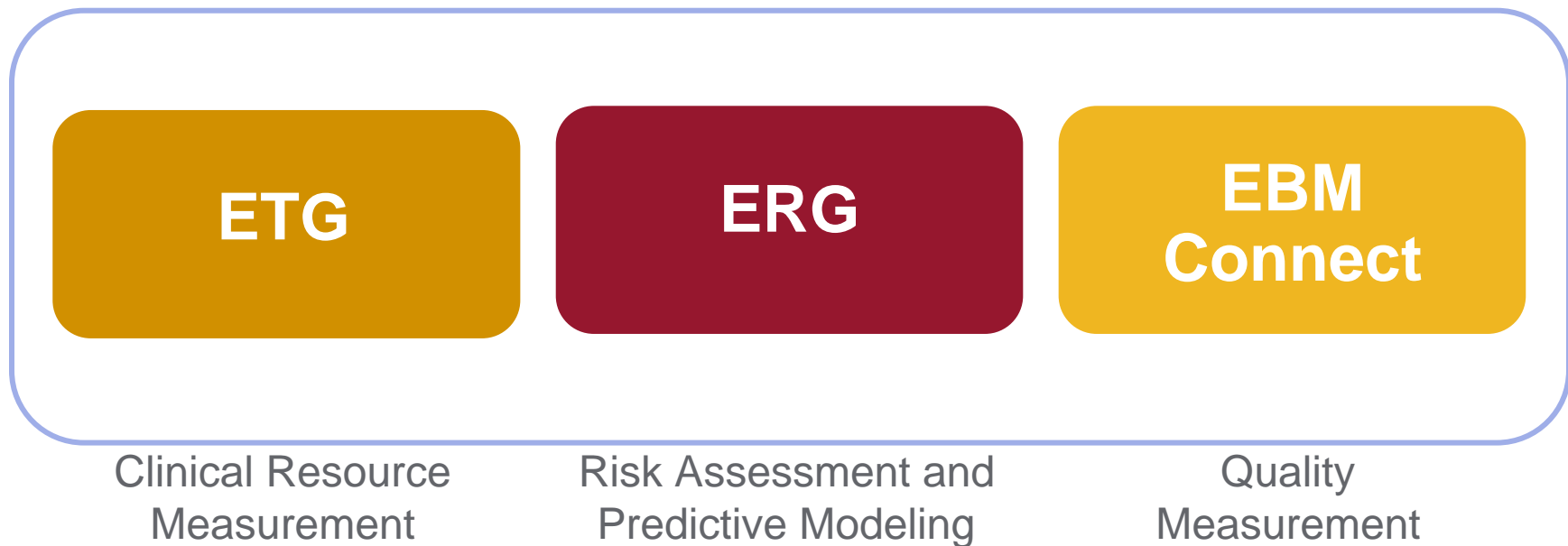
OptumInsight Medical Quality, Access & Cost Solutions Impact Pro

Lloyd Brodsky

Symmetry Suite: A Business Standard

- Universal language and business standard for health care analytics in the marketplace
- Only product suite in the market providing comprehensive health care analytic solutions through “component” engines on an integrated platform

Symmetry Suite



A complete toolkit for health care management and analytics

Measuring Risk

Four Steps to Prediction:



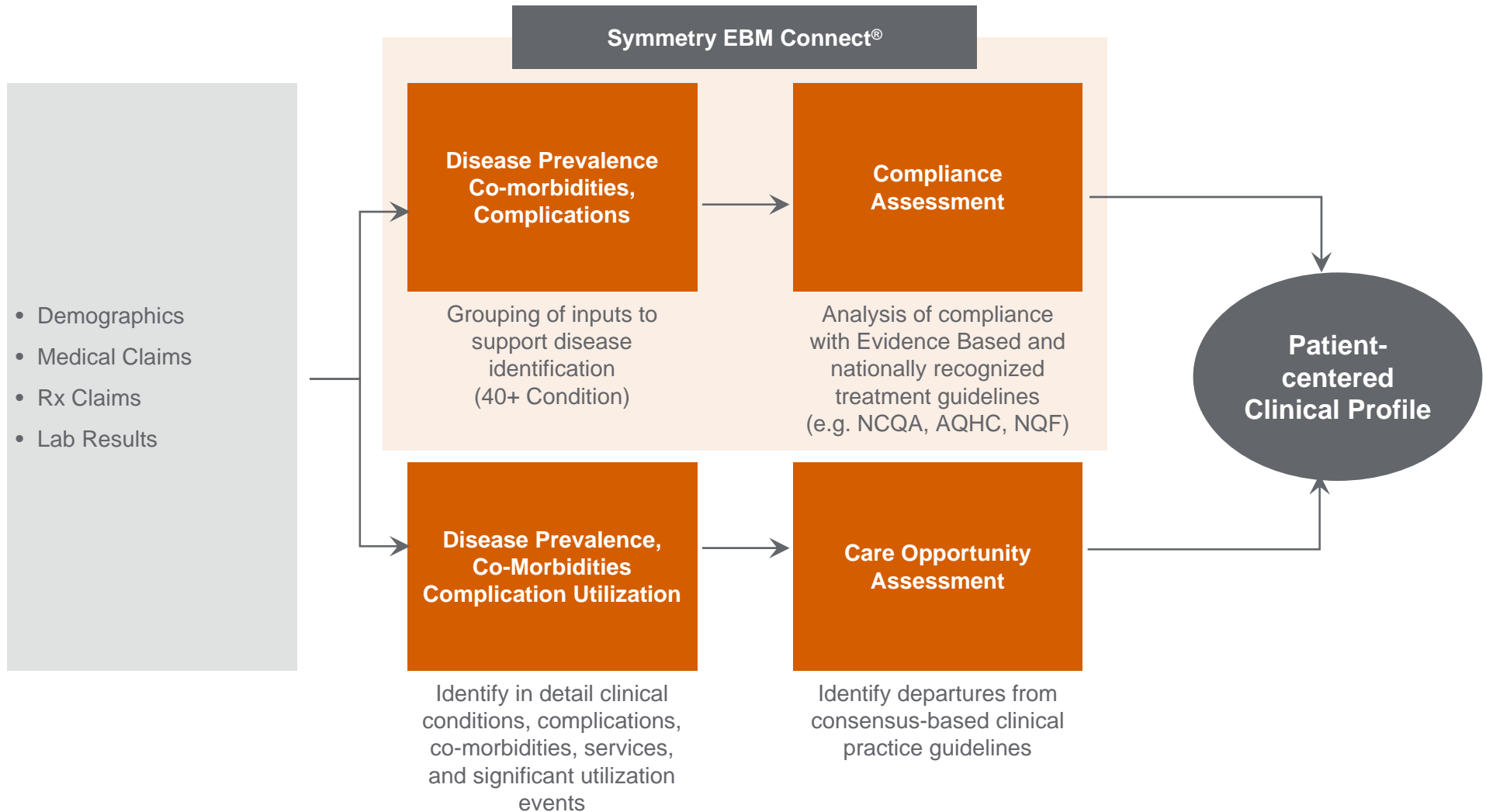
Predicting Risk and Future Cost

Member Markers of Risk		Relative Risk Score	Predicted Annual Cost
Base	Diabetes	0.420	\$1,714
Severity	Diabetes, Added Severity II	0.681	\$2,728
Service	Inpatient stay, diabetes within recent 3 months	2.362	\$9,637
Base	Heart Failure	0.762	\$3,109
Severity	Heart Failure, Added Severity I	0.205	\$836
Service	High HF episode clusters, recent 3 months	1.366	\$5,573
Demographic	Male, 55 – 64	0.616	\$2,513
		6.412	\$26,161

Example from Impact Pro – Version 6. CM 12-012 Future Risk Costs Model.

Patient-centered profile – Clinical Profile

Each member's Clinical Profile is based upon the latest evidence-based medicine and rules which you can tailor to specific populations



Predictive Modeling – Case Example

Differentiating Between Members

Patient A.
Male, 52, Diabetic

- Type 2 Diabetic, non-insulin dependent
- Most recent HbA1c is 8.9; taken 2 months ago
- Hospitalization 6 months ago for AMI
- Multiple outpatient visits over last 12 months
- Prior year's cost \$21,700

Patient B.
Male, 60, Diabetic

- Type 2 Diabetic, non-insulin dependent
- Most recent HbA1c is 8.2; taken 9 months ago
- Multiple outpatient visits over last 12 months
- Prior year's cost \$25,400

Impact Pro Case Example

Looking Deeper

	Patient A	Patient B
Prior Cost	\$21,700	\$25,400
Predicted Risk (Cost)	9.0 (\$34,020)	4.0 (\$15,120)
Predicted Risk (Inpatient)	29.2% in next 3 months	6.9% in next 3 months
Disease Prevalence	Diabetes	Diabetes
Co-morbidity and Complication Markers	Coronary Artery Disease (CAD) Hyperlipidemia (Rx-based)	Hypertension
Management	Hospitalization – AMI Over 15 Outpatient Visits (Diabetes and CAD)	Over 15 Outpatient Visits – (Carpal Tunnel Syndrome)
EBM-compliance	Not refilling Beta-blockers for CAD	No eye exam for Diabetes No recent HbA1c Test
Care Team	Dr. Sugar – Diabetes Manager No Cardiac Care Manager	Dr. Pressure – Cardiac Care No Primary Care Physician
Care Alerts	Poor CAD/Diabetes Management Not Refilling Beta-blockers No Cardiac Care Manager	Lack of Eye Exam Lack of recent HBa1C Test No Primary Care Physician
Intervention Program	Diabetes, Level 4 (High)	Diabetes, Level 2 (Medium)

What's good

- Will get plausible explainable product-line cost accounting
 - A vast improvement if you haven't had this before
- Will get a reasonable assessment of risk
 - Total population Rsquared around 30% in 70's for chronically ill
- Useful for overall population health and quality assessment
- Useful for a patient-level overview of predictable problems

What's less good

- Uses claims data, not clinical data
 - No vital signs, no clinical surveys etc.
 - Many clinical observations not recorded as diagnoses
 - Obesity, for example
 - Keep in mind clinical data isn't very standardized and is hard to get
- Static model
 - Takes a year's worth of data and generate a report
- Neither a workflow nor an alerting system
 - Although it's easy enough to integrate if you have one because the output is flat files
- No intrinsic followup
 - Ideally, you'd want to know what happened to your high-risk patients the following year, compare actual to expected, and engage in continuous process improvement
- Uses standard prices, not actual

Design problems in using analysis (ANY analysis)

- Speaking of continuous process improvement, be clear that useful reporting is only one step in a larger process
- Who are you going to tell (and how)?
 - The PCP? One of the specialists? The patient? The patient's caregiver?
 - If you don't have secure email or a workflow system
- Who do you want to do what after you tell them?
 - Just telling the patient to lose weight isn't that helpful
- Why are they going to pay attention and believe you? (and should they?)
 - In the absence of common expectations about outcomes and how to achieve them people tend to follow their instincts
 - Keep in mind most clinicians don't have a background in lean processes or pop health info on their own patients
- What do you do if they don't?