



COTA: Moving to Value

*NJHCQI*

*December 3, 2015*

# Topics to be covered

- Brief overview of COTA
- Moving to Value
  - Variance detection
  - Risk abatement
  - Benchmarking
- Company Facts & Technology

# Healthcare Spend and Waste



*\*Assumes average event costs \$2000*



# You can't improve what you don't measure

**What are the clinical and quality outcomes for patients by disease?**

**How much did it cost to deliver the care?**

**How are your doctors & sites performing?**

**How do you compare as an organization to the rest of the country?**

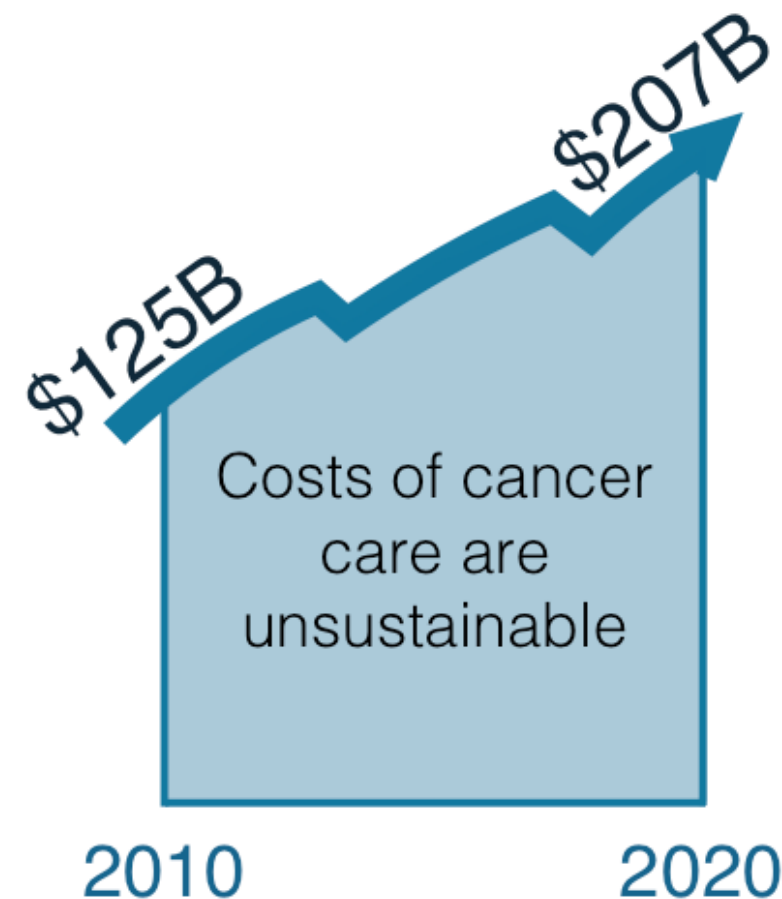
# Oncology is uniquely complex and costly



Scientific  
advances



Aging  
population



**Fastest growing segment of cost across all specialties**  
**Healthcare costs now 18% of GDP – Govt taking action**



# Innovation brings higher price tags

## Bristol-Myers Squibb Receives Approval from the U.S. Food and Drug Administration for the Opdivo (nivolumab) + Yervoy (ipilimumab) Regimen in BRAF V600 Wild-Type Unresectable or Metastatic Melanoma

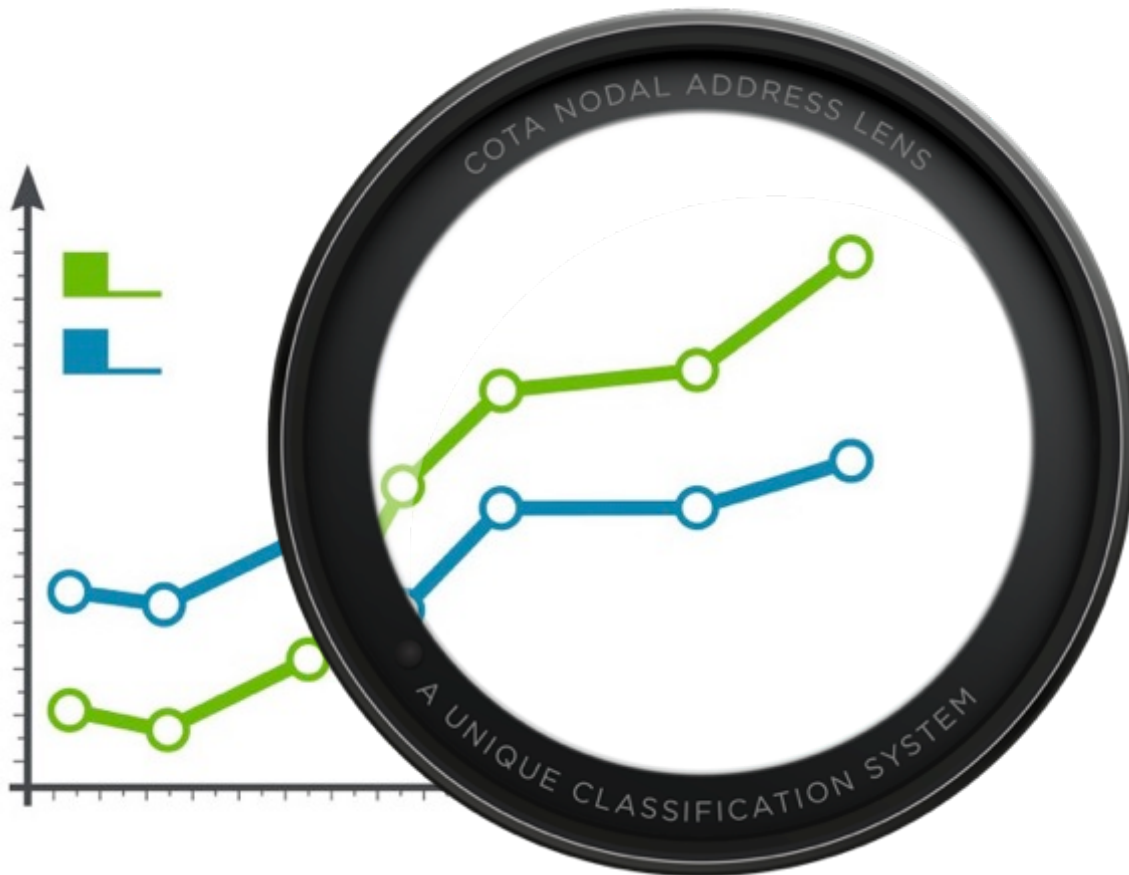
- *First and only FDA-approved combination of two Immuno-Oncology agents<sup>1</sup>*
- *Pivotal study CheckMate -069 demonstrates significantly superior responses and progression-free survival with the Opdivo + Yervoy Regimen vs. Yervoy alone<sup>1</sup>*
- *Approval of the Regimen marks a new development, demonstrating the potential of targeting distinct and complementary immune system pathways, offering patients a novel combination treatment*



Up to **\$256,000**  
for one year of  
therapy

Thursday, October 1, 2015 6:59 am EDT

# COTA is a software platform that enables reduction of variance through precise classification and analysis



- Enable reimbursement to move to alternative payment models
- Empower providers with actionable data
- Create national benchmarks

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# COTA Nodal Address: A New Digital Classification for Cancer



## Clinically Relevant Factors

ICD-9 Code:	174.9
Age:	49
Estrogen Receptor:	Positive
Progesterone Receptor:	Positive
Her2neu:	Negative
OncotypeDX:	12

*Several additional factors included*

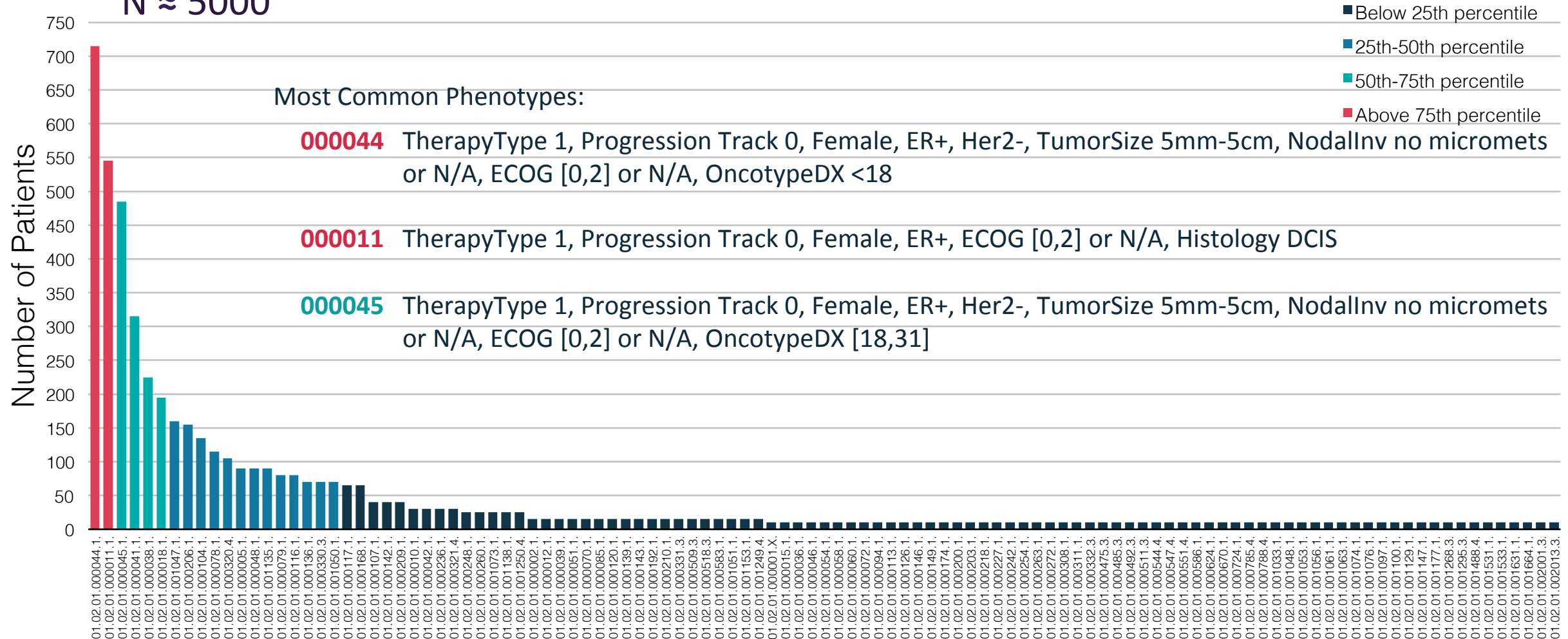
*\* Patent Pending*

01.02.01.000015.1.0

Neoplasm of the breast Phenotype 15

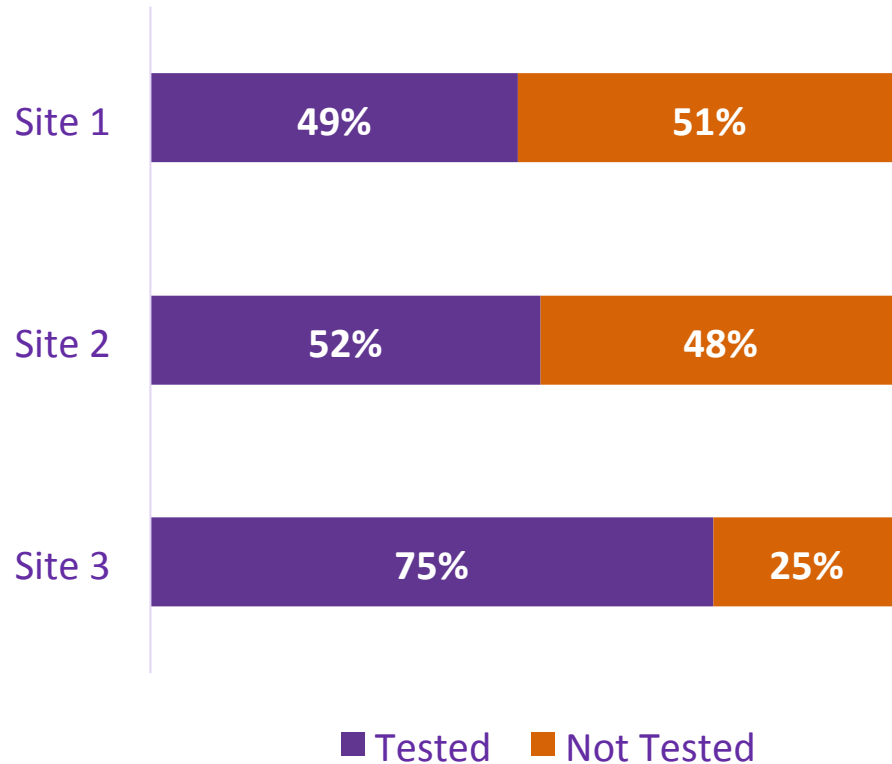
# Biologic disequilibrium in CNA distribution has already been identified

N ≈ 5000

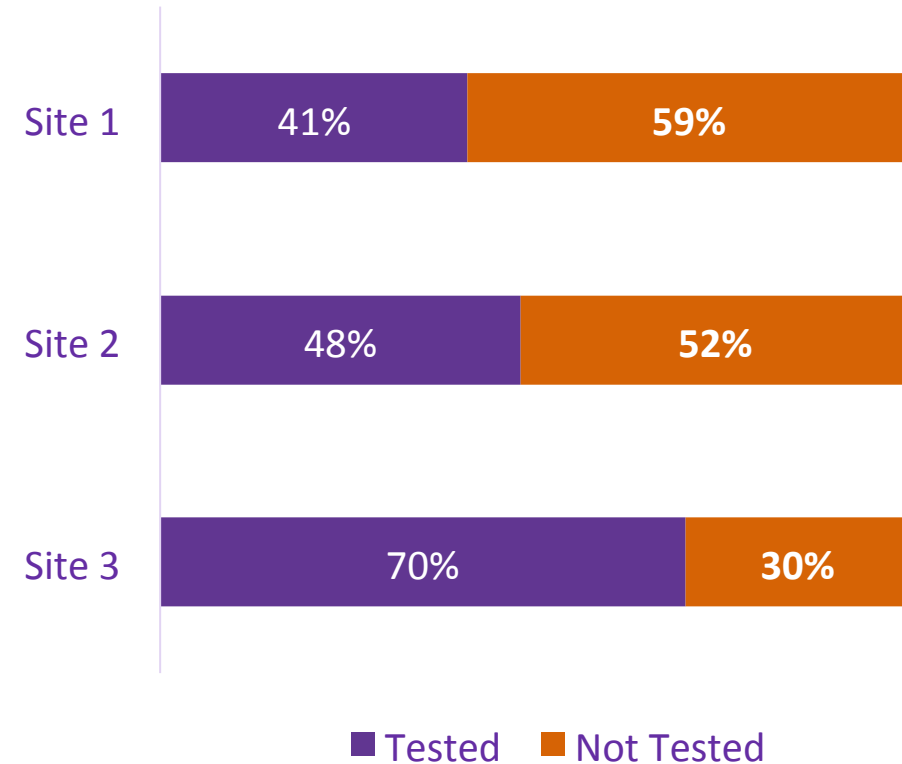


# Testing rates for EGFR / ALK vary widely across practices

## EGFR testing rates (Stage 4 NSCLC)

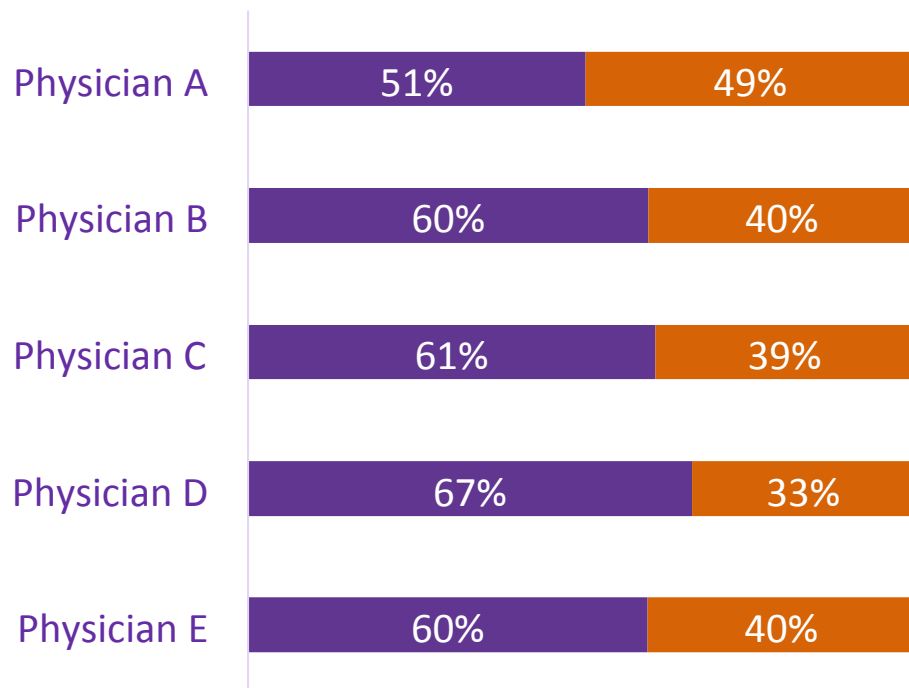


## ALK testing rates (Stage 4 NSCLC)



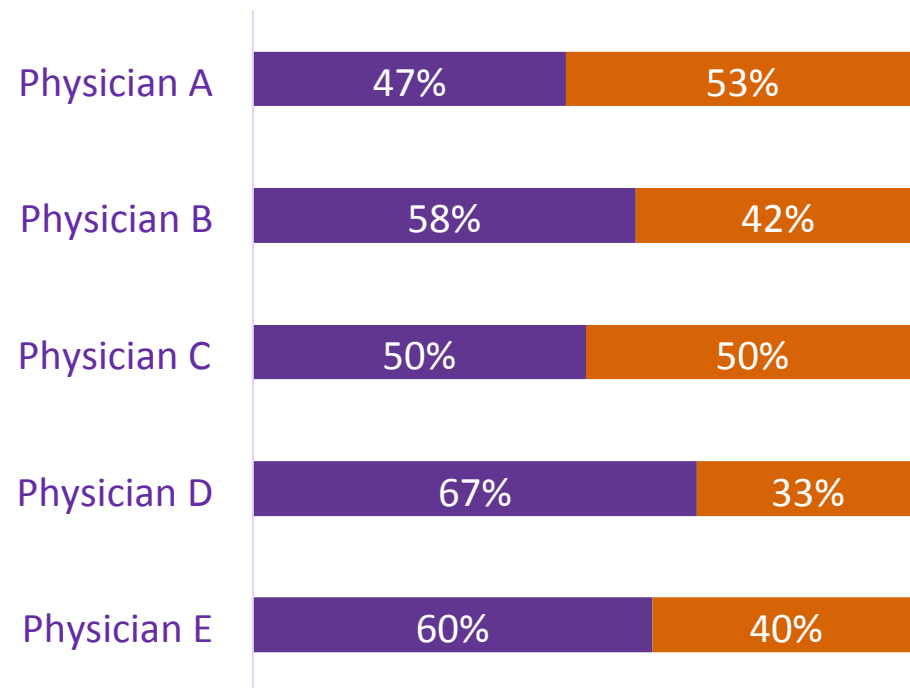
# They also vary by physician

## EGFR testing rates (Stage 4 NSCLC)



■ Tested ■ Not Tested

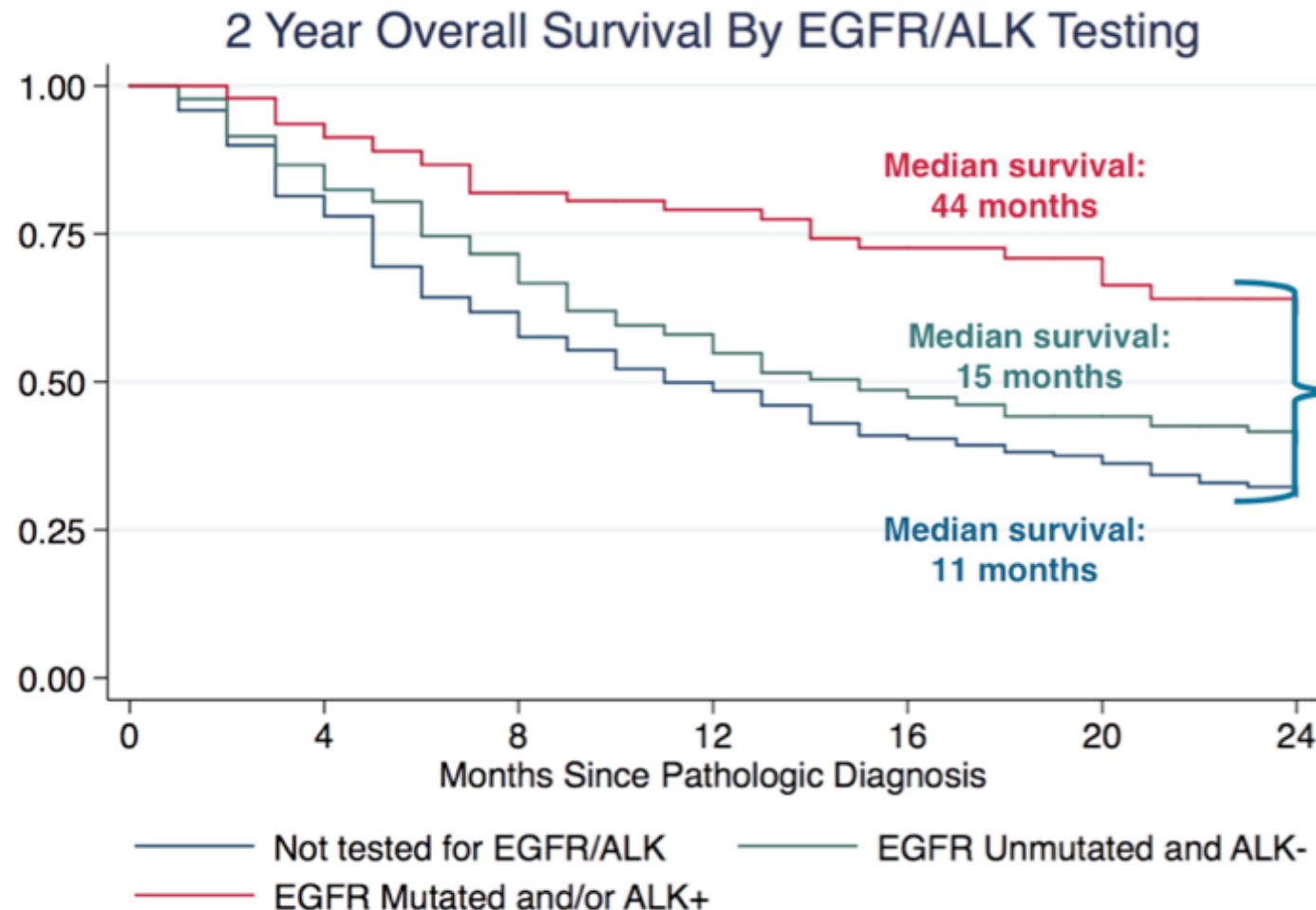
## ALK testing rates (Stage 4 NSCLC)



■ Tested ■ Not Tested




# Testing and appropriate use of targeted therapies significantly improve survival in the real world

N=722 patients  
with stage IV  
NSCLC



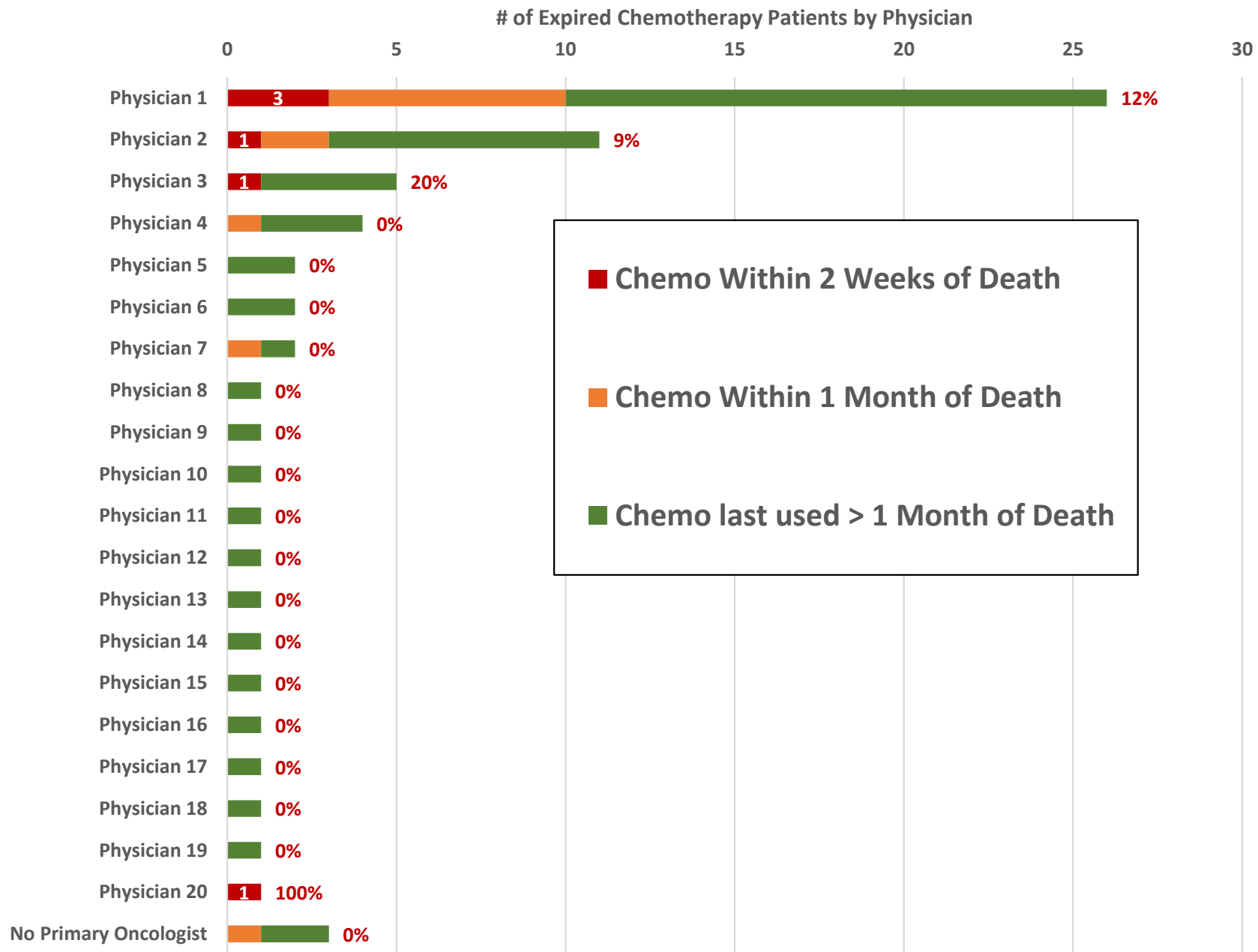
Survival rate  
correlation  
with testing  
for EGFR and/  
or ALK of 4x:  
44 months vs.  
11 months

# Metastatic Lung Cancer: Total Costs

N=49							
	Average total cost		% anti-neoplastic drugs	Mean Observation Time (days)	Avg Inpatient LOS (days)	Deaths, n (%)	Charlson Co-morbidity
Non-small-cell non-mutated n=31	 \$83,871		41%	195	8.9	19 (61%)	3.9
Non-small-cell mutated n=8	 \$75,003		64%	273	3.8	1 (13%)	3.4
Small cell n=10	 \$57,326		33%	236	8.7	8 (80%)	3.3



# 2013 Stage IV Lung Patients: End of Life Chemotherapy Use by Physician



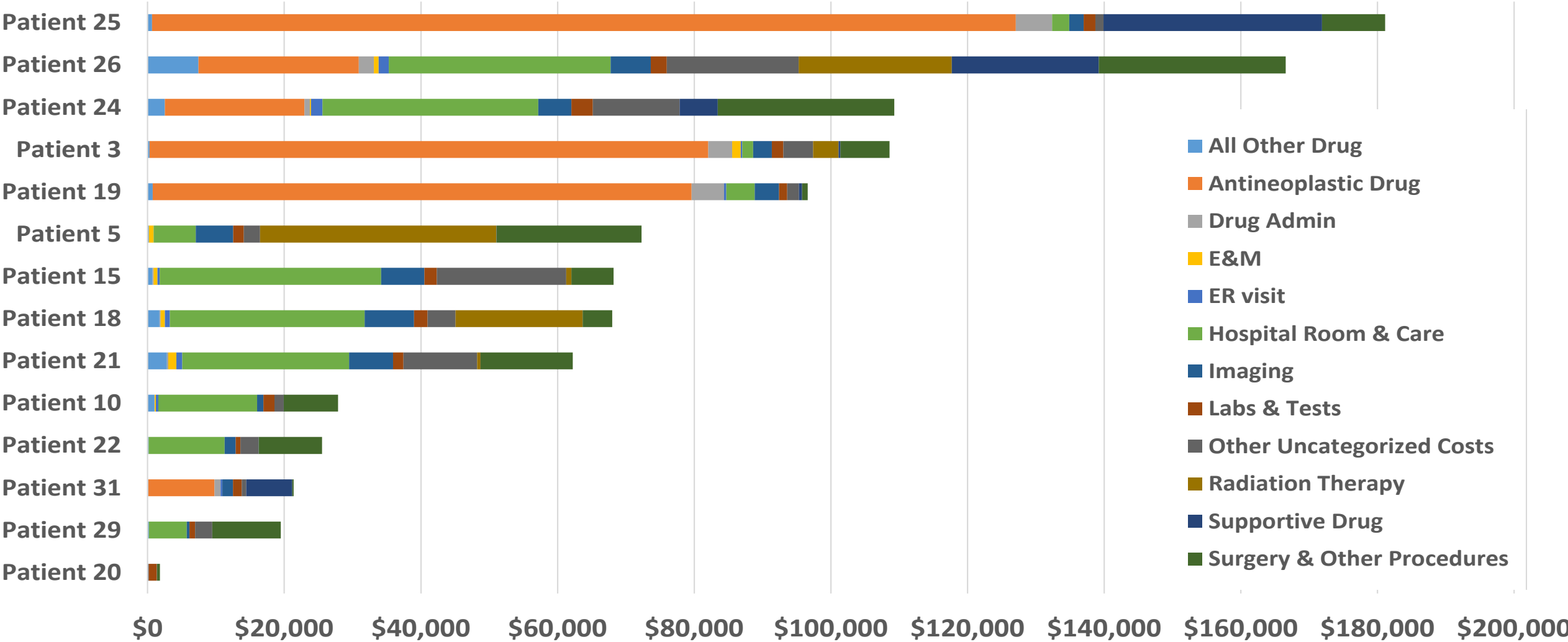
# Detecting variance with CNAs: Phenotype 011852

## *Chemotherapy use (Stage 4 NSCLCA)*

Patient	1stLineRegimen
Patient 24	Alimta/Carbo/Avastin
Patient 25	Alimta/Cisplatin/Avastin
Patient 26	Alimta/Carbo
Patient 29	No Chemotherapy
Patient 22	No Chemotherapy
Patient 10	No Chemotherapy
Patient 3	Alimta/Avastin
Patient 21	No Chemotherapy
Patient 18	No Chemotherapy
Patient 19	Alimta
Patient 5	No Chemotherapy
Patient 15	Alimta/Carbo
Patient 31	Alimta/Carbo/Avastin
Patient 20	No Chemotherapy

# Detecting variance with CNAs: Phenotype 011852

*Total Cost by patient (Stage 4 NSCLCA)*



# Active tracking and reporting improves quality

*(COTA partner practice experience)*

Clinical Metric	Historical	Currently tracking
Molecular testing rates (EGFR & ALK)	59%	>80%
Documentation of ECOG at 1 <sup>st</sup> visit or prior to chemotherapy start	50%	>90%
Inappropriate use of targeted therapies	5%	0%
Appropriate use of targeted therapies	83%	>95%

Improving  
outcomes and  
reducing variance is  
an iterative  
process.



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# COTA Technology

## Aggregation and Ingestion

- Accept data from any source in any format – “EMR agnostic”
- Full HL7 integration in 1 month or less
  - Epic, Cerner, Altos, Varian, etc
- Implementing first FHIR production integration with Epic in the US
- Support extraction of structured and unstructured data in addition to standardized HL7/FHIR formats

## Other Key Features

- Analysis & Visualizations
- Benchmarking & Decision Support
- Security
  - Cloud-based, HIPAA compliant, web applications
  - Data encryption (HTTPS in transit and AES 256 at rest) standard data within the system

# COTA Company Timeline

2011

- COTA Incorporates
- Seed funding from Regional Cancer Associates (RCCA)

2012

- Initial commercial deals executed with Life Sciences

2013

2014

- September: \$7M Series A round with Horizon BCBS as lead investor
- October: Breast Cancer Bundles launched with Horizon and RCCA

2015

- Launch Medical Home with Cigna
- Launch Metastatic Bundles in Lung & Colon
- Benchmarking quality metrics for major systems
- Dr. Andrew von Eschenbach joins COTA Board
- Validated seminal concepts with Life Sciences/Pharma
- Staff reaches 62
- Office relocates to 85 Broad Street in Financial District, NYC

# Management and Board of Directors



Andrew Pecora, MD  
Founder and Chairman



Eric Schultz  
Chief Executive Officer



Stuart Goldberg, MD  
Chief Medical Officer



Kelly Choi, MD  
Chief Operating Officer



William Kea  
Chief Financial Officer



Augie Smith  
Chief Technology Officer

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Andrew Pecora, MD  
Executive Chairman

Joseph Davi  
President & CEO, Med-Metrix

Andrew von Eschenbach, MD  
Former Commissioner FDA and  
Director of NCI

Andre Goy, MD  
Chairman, John Theurer Cancer Center

John Hervey  
Senior Managing Director, Guggenheim  
Partners

Ed Licitra, MD  
Board Chairman, Regional Cancer Care  
Associates

Minal Patel, MD  
Chief Strategy Officer, Horizon Blue  
Cross Blue Shield

Glenn Pomerantz, MD  
Chief Medical Officer, Horizon Blue  
Cross Blue Shield

Eric Schultz  
Director