

A Different Industry Perspective on Multiple Input Data Analytics

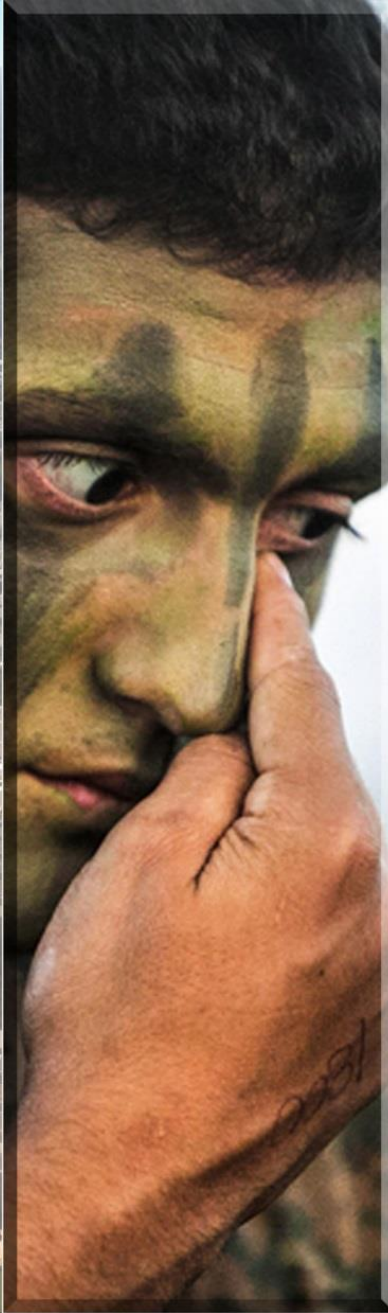
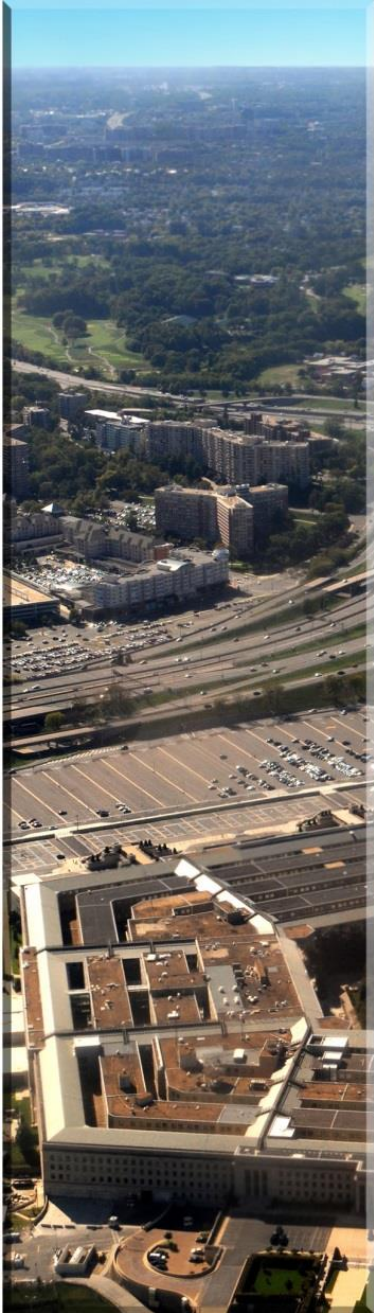
PRISME Forum Fall 2015 Keynote Address

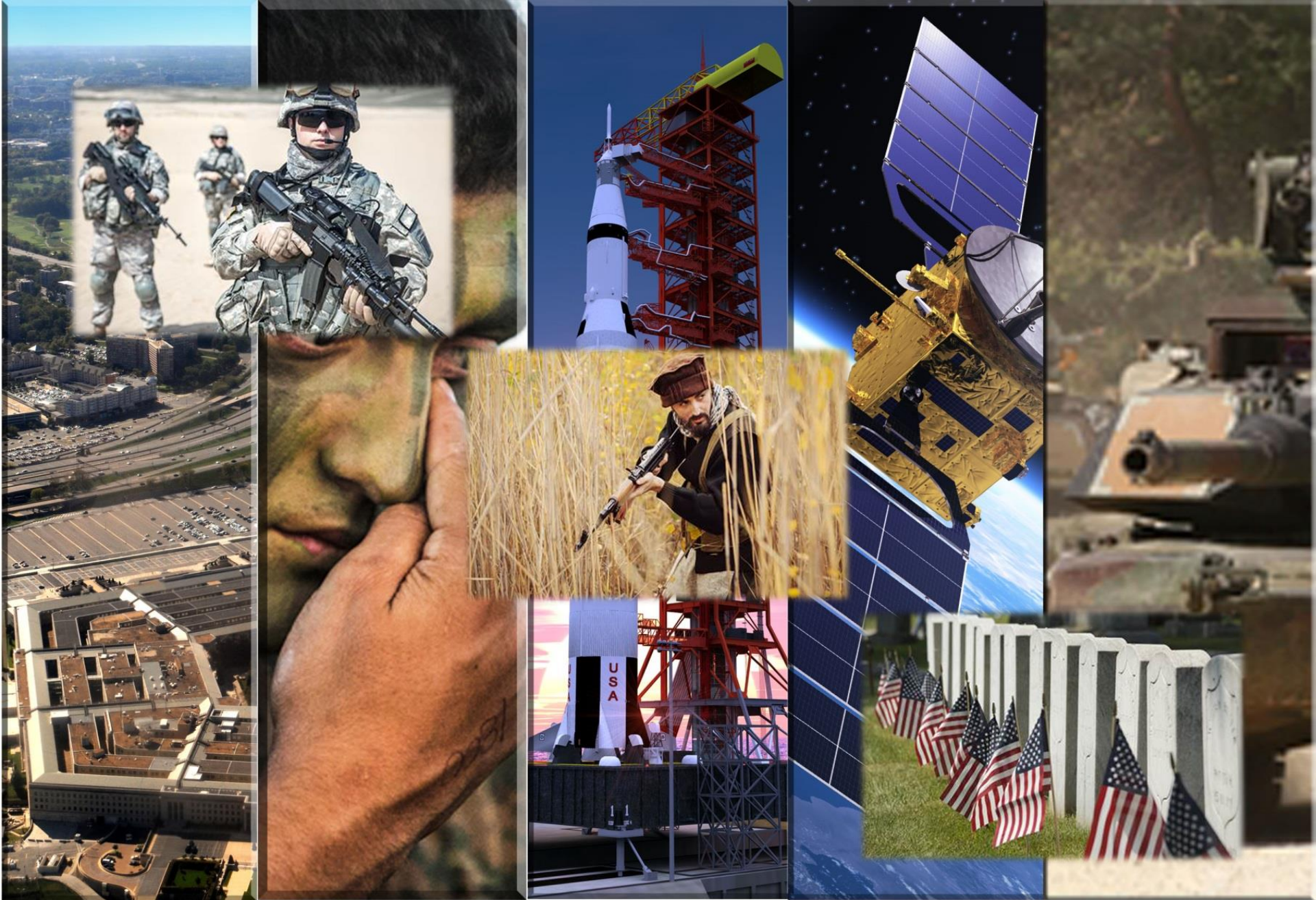
Tara Grabowsky, M.D.
Chief Medical Officer
Vencore

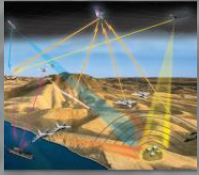
Oodaye Shukla
Chief Data Scientist
Vencore

November 19, 2015





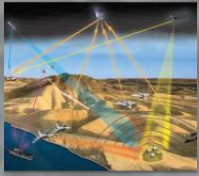




Sensor
Integration



Situational
Awareness



Sensor
Integration



Situational
Awareness



Structured/
Unstructured
Data



Social
Network
Analysis

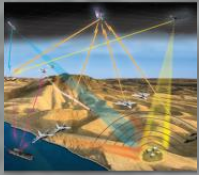
Structured/Unstructured Data

The Brothers, the official said, are not an extension of Al Qaeda but affiliated with it in the same way as Indonesia's Jemaah Islamiyah, which reportedly financed last year's Bali nightclub bombings with \$30,000 provided by Al Qaeda, or a Salafist group in Morocco that allegedly used \$50,000 in Al Qaeda money to pay for five suicide bombings in Casablanca earlier this year.

Structured/Unstructured Data

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Organization	Location	Event	Date	Facility
involvedOrganization	eventLocation		eventDate	



Sensor
Integration



Situational
Awareness



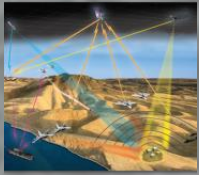
Structured/
Unstructured
Data



Social
Network
Analysis



Knowledge
Transfer



Sensor
Integration



Situational
Awareness



Structured/
Unstructured
Data



Social
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Analysis



Knowledge
Transfer

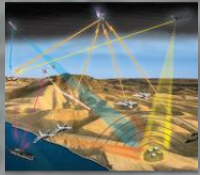


Automatic
Target
Recognition



Predictive
Analytics





Sensor
Integration



Situational
Awareness



Patient
Journey



Structured/
Unstructured
Data



Social
Network
Analysis



Knowledge
Transfer



Automatic
Target
Recognition



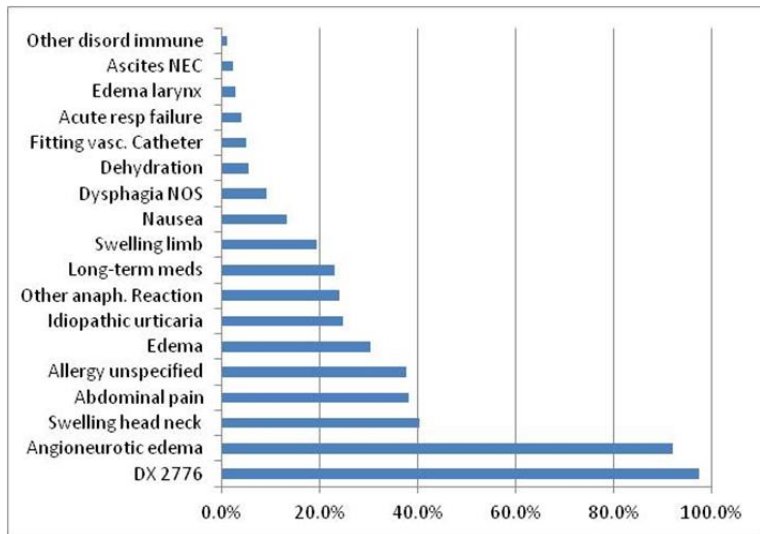
Predictive
Analytics

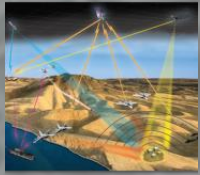
Case Study: HAE Patient Journey

Ranked List of HAE Features

Drugs	Diagnosis	Procedures
CINRYZE	Angioneurotic edema	Pathology/Lab Procedure
FIRAZYR	Swelling head neck	Berinerit Prophylaxis C1-INH
BERINERT	Abdominal pain	Kalbitor (ecallantide) injection
FIRAZYR	Abdominal pain	Complement, total
KALBITOR	Edema	Home health service
EPIPEN SYRINGE	Nausea	Injection; IV push;
EPIPEN AUTO-INJ	Abdominal pain	Home infusion therapy
DANAZOL (7 Different NDCNUM codes)	Fitting vasc. Catheter	
SALINE FLUSH SYRINGE	Idiopathic urticaria	
OXANDROLONE	Allergy unspecified	
HEPARIN SODIUM	Ascites NEC	
STANOZOLOL	Other anaph. Reaction	
OXANDROLONE	Edema larynx	
	Acute resp failure	
	Long-term meds	
	Dysphagia NOS	
	Dehydration	
	Other disord immune	
	Swelling limb	

HAE Diagnosis Distribution





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Integration



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Awareness



Patient
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Structured/
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Social
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Analysis



KOL
Referral



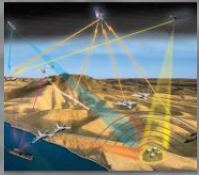
Knowledge
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Patient
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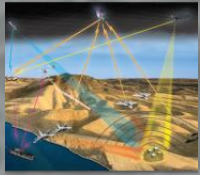
Claims & EHR
Integration



Automatic
Target
Recognition



Predictive
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Sensor
Integration



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Patient
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Structured/
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Claims & EHR
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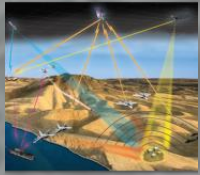
Automatic
Target
Recognition



Predictive
Analytics



Patient
Finding



Sensor
Integration



Situational
Awareness



Patient
Journey



Structured/
Unstructured
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KOL
Referral



Knowledge
Transfer



Claims & EHR
Integration



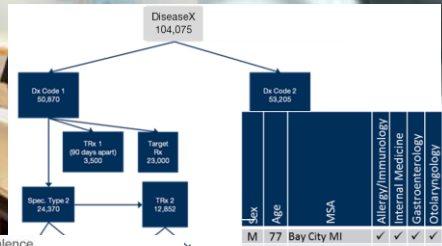
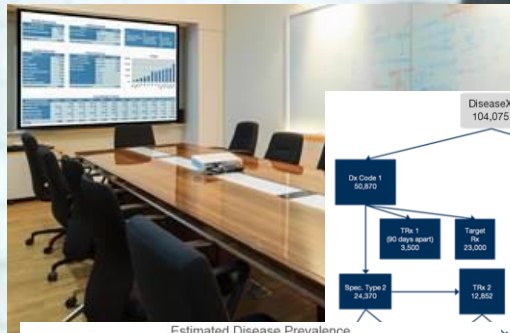
Automatic
Target
Recognition



Predictive
Analytics



Patient
Finding



Estimated Disease Prevalence
Undiagnosed+Treated / Population

Sex	Age	MSA	Allergy/Immunology	Internal Medicine	Gastroenterology	Otolaryngology	Dermatology	Ophthalmology	Cardiology	Hematology	Rheumatology	Pulmonary
M	77	Bay City MI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	63	Bend OR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M	21	Binghamton NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M	35	Dubuque IA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M	41	Erie PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	41	Gary IN	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	55	Greeley CO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	35	Lancaster PA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	88	Huron MI	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
M	51	Bernalillo NM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	36	Maricopa AZ	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	36	Chatham GA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
F	36	Chatham NY	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓



VENCORE



RESPECT

ACCOUNTABILITY

DEDICATION

IMPROVEMENT

INTEGRITY