

Next Generation Data Analytics Platform

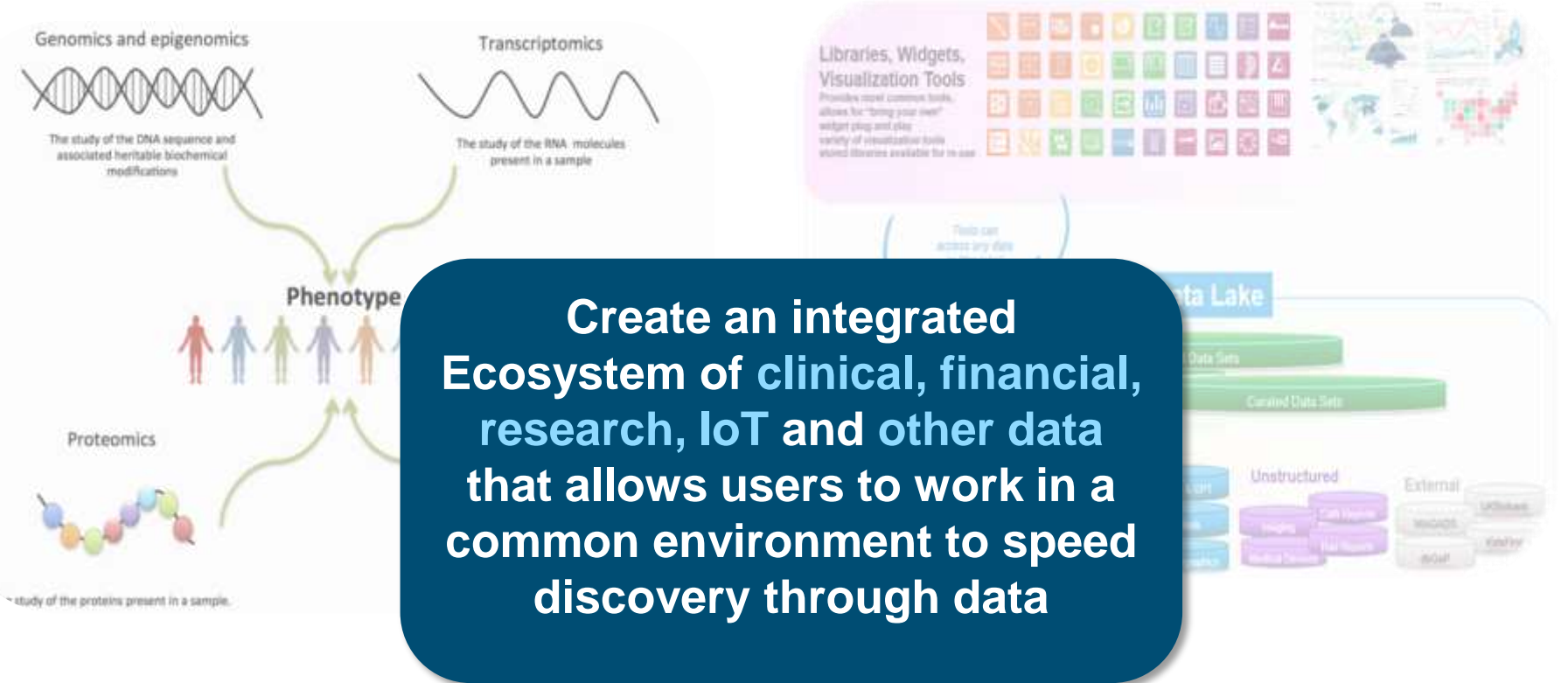
NJ/DVHIMSS Fall 2018

Jim Beinlich

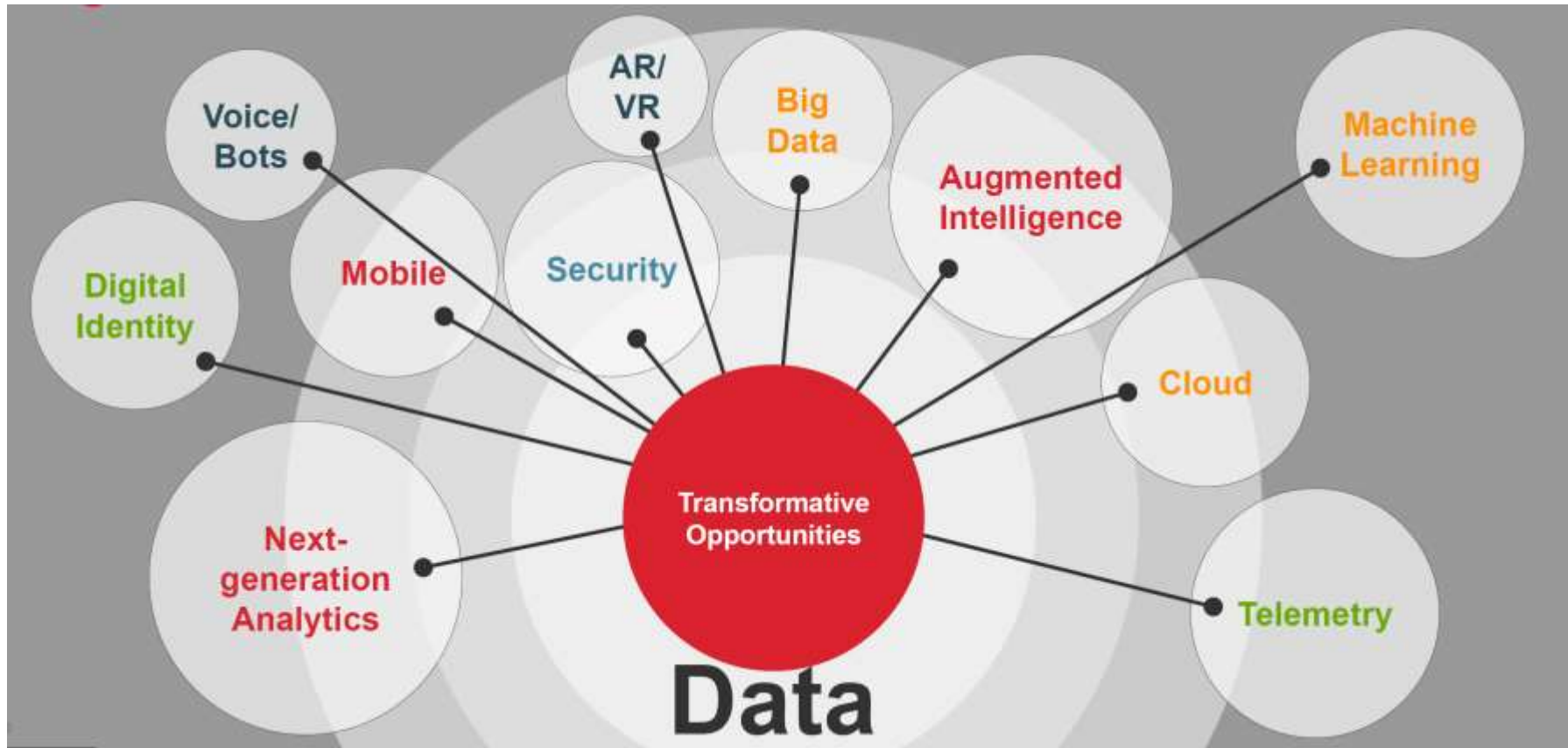
**Associate Vice-President
Corporate Information Services**



What is our GOAL?

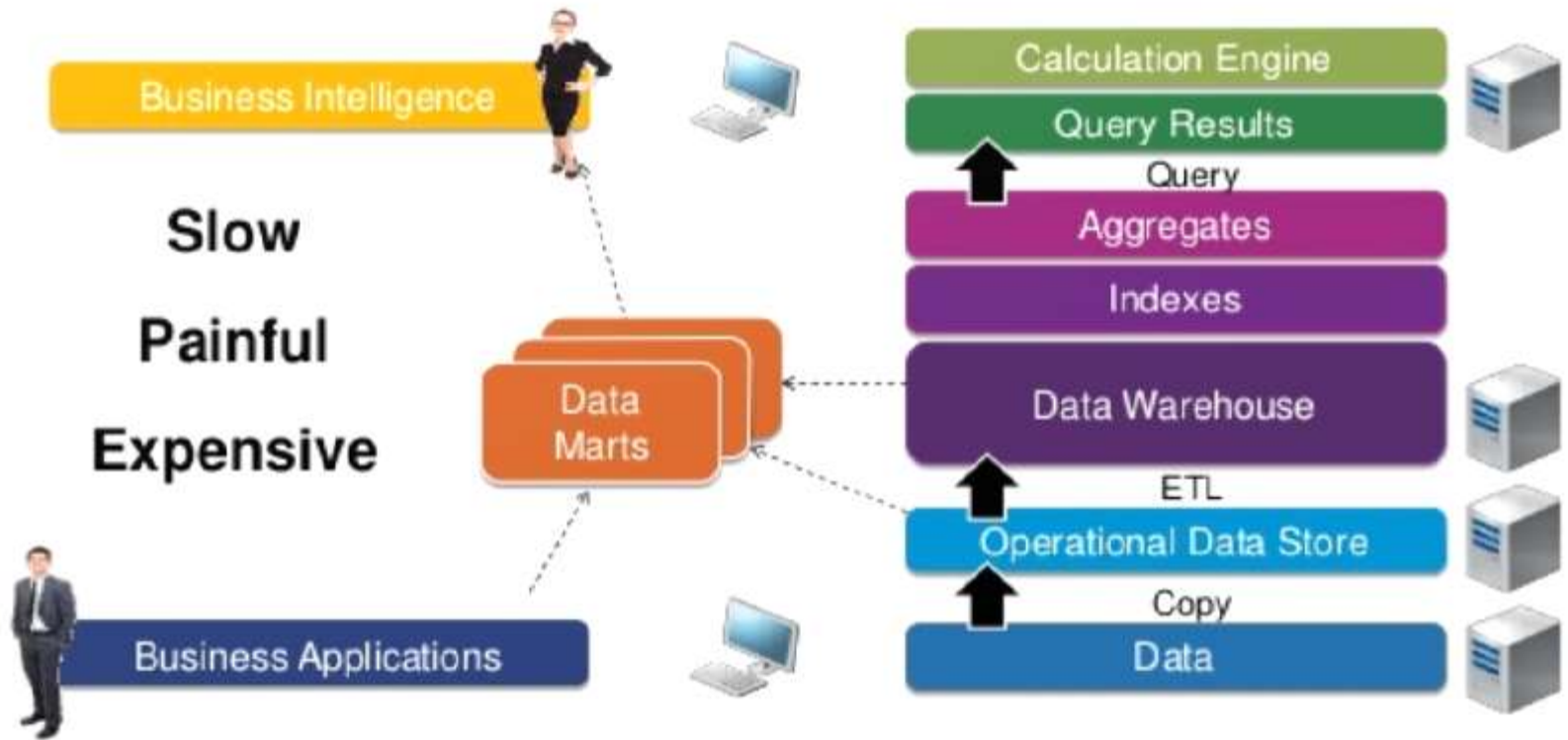


What's driving change?



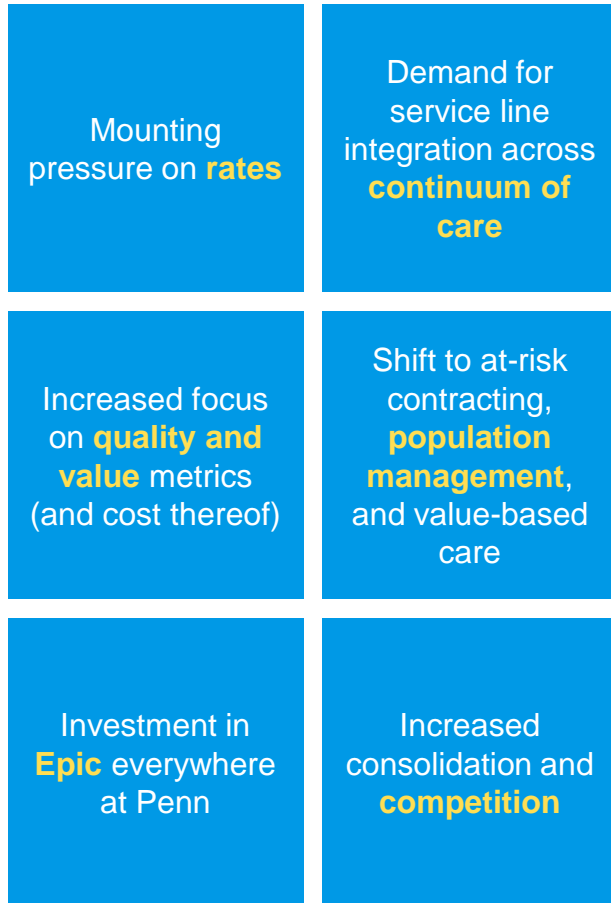
Complexity, Velocity, and Demand for **Self-Service**

“Traditional” Business Intelligence

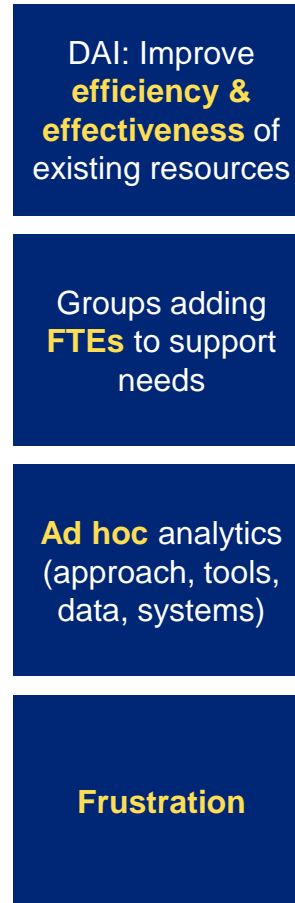


What's driving change?

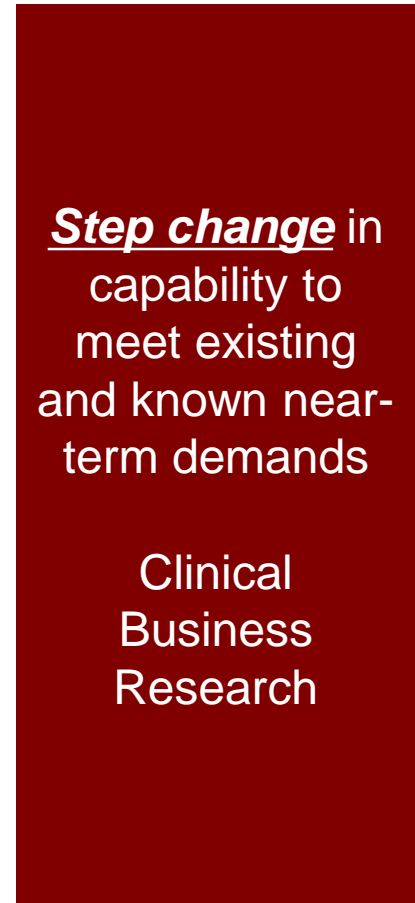
External demand drivers



Penn's Response

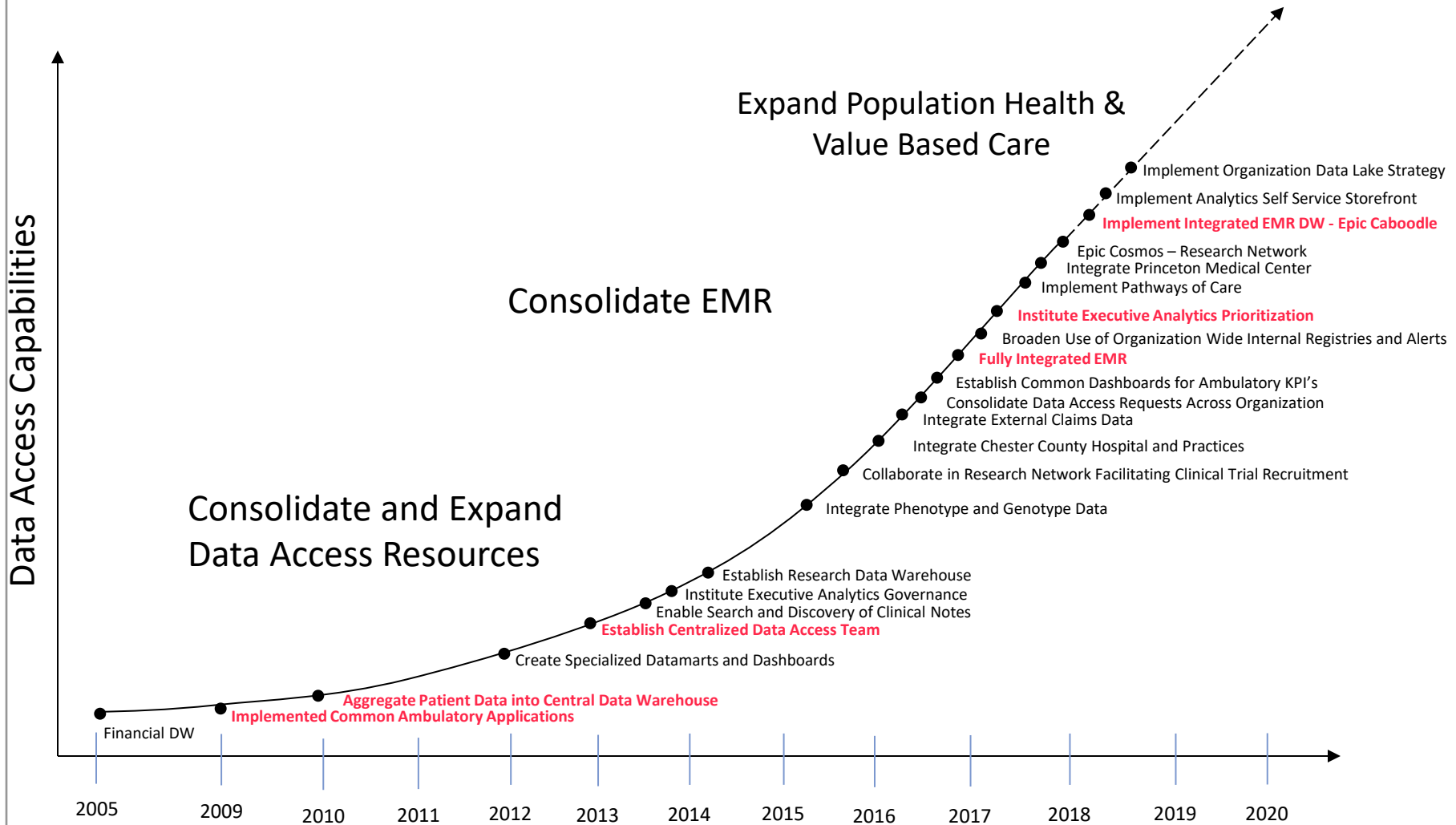


What we need



All with an accelerating pace of change

Chronology of Data Access Capabilities



Describing the architecture



How we're looking at the solution

Interchangeable modules that provide specific features yet work together so that the whole appears to be a **single solution** to an end user

Requires a “**platform**” to run on. Like a smartphone is a platform upon which many different apps operate...

...a unified analytics platform provides the foundation that ties the individual pieces together



Custom building an in-house solution would be analogous to building our own **smartphone**...

...introduces cost and delays that don't make sense

So what's different?

Old Paradigm

Warehouse

Fixed Data Model

Ingest

Scrub and Transform

Retrospective

Report



New Paradigm

Lake

Flexible Data Model

Connect

Late-Binding

Real Time

Discover

Proposed Ecosystem for Analytics

Significantly improving access to data

Flexible and Secure Data Model

Non-proprietary, interoperable,
easily adaptable

Libraries, Widgets, Visualization Tools

Provides most common tools, allows for "bring your own" widget plug and play variety of visualization tools stored libraries available for re-use



Tools can access any data in "the lake"

Penn Data Lake

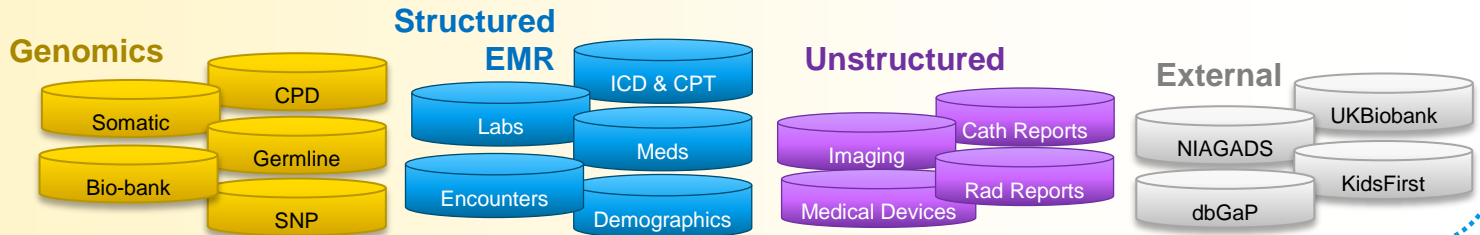
Curated Data

Clinicians, students, Basic research needs

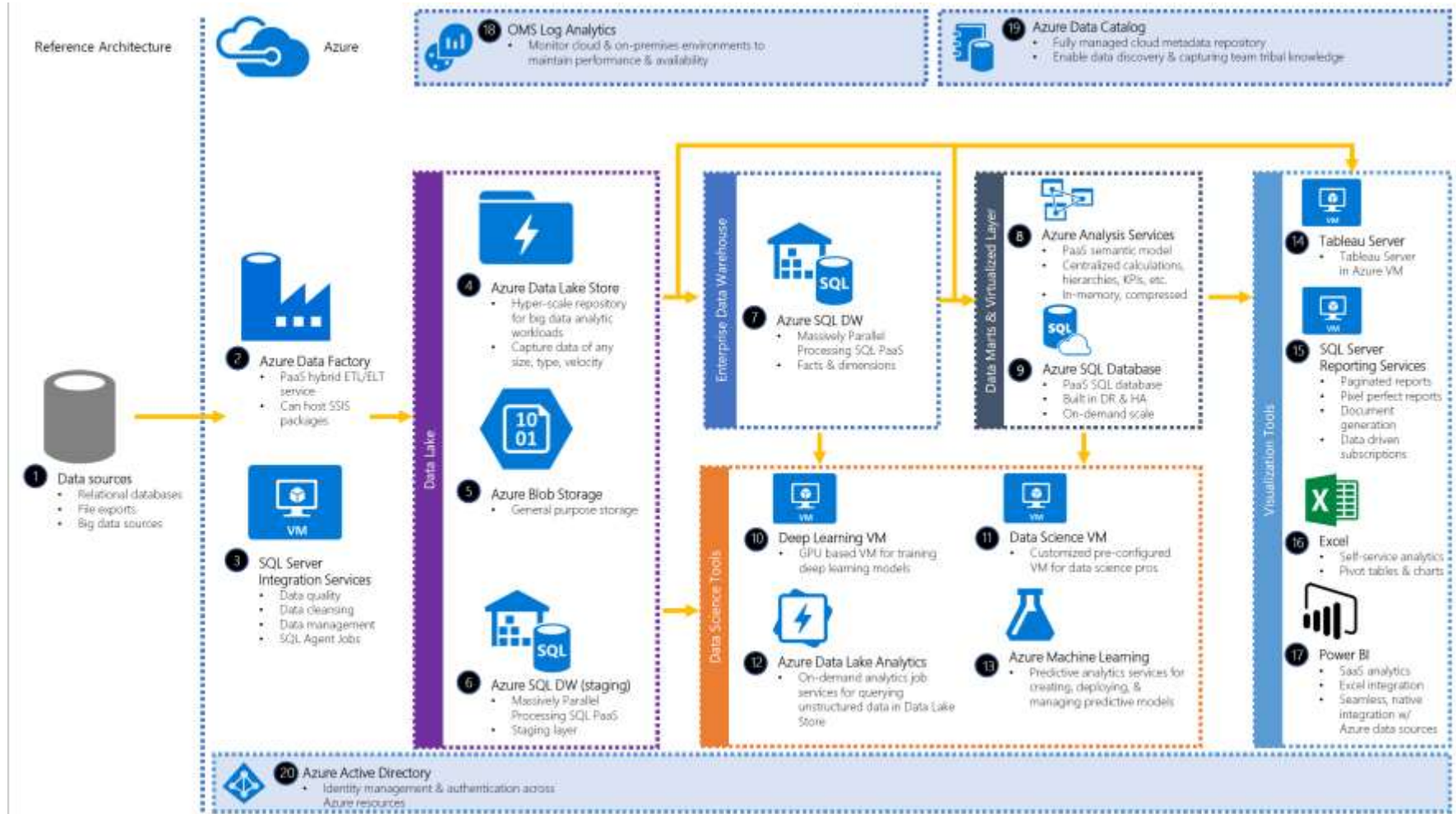


RAW Data

Informaticists, Advanced researchers



Microsoft Next Generation Architecture



Analytics Project Team Structure

Governance

Analytics Governance Committee

Project Directors: Chief Data Info Officer (IS), AVP Strategic Operations)
Project Managers: 1 Full time, 1 half-time

Technology Platform

Data Analytics Center Sr. Manager
Data Engineer

Data Lake

Data Analytics Center Sr. Manager
Data Architect
Data Engineers
Data Analyst (IS)

Curated Data Store

Ops Director Associate CIO (co-leads)
Data Architect
Data Engineer
Data Analyst (IS)
Data Analysts (Ops)

User Facing Products

Ops Director Associate CIO (co-leads)
Data Architect
Data Engineer
Data Analyst (IS)
Data Analysts (Ops)

Integrated Areas

Infrastructure

Security

Education

Testing

Analytics Project Team Grid

Data Analytics Core – Team Grid

Team	Accountability	Team Lead	Project Deliverables
User-facing Products	<p>All user-facing components of the environment:</p> <ul style="list-style-type: none"> Analytics Storefront Dashboards Reporting Analytics Applications and Tools 	Ops I/S	<ul style="list-style-type: none"> Design and content update of the Analytics Storefront Design and feature-set of the all dashboards Design and governance of the reports and reporting tools in the environment Evaluation and selection of applications and tools to be used in the environment
Curated Data Store	Evaluation, summation and curation of source data sets for use by end-users via user-facing Products.	Ops I/S	<ul style="list-style-type: none"> User-stories to facilitate data curation rules Business rules to govern data normalization, filtration, and integration Definition and maintenance of common/standard Penn Medicine metrics
Data Lake	Facilitate and manage data assets included in the data lake	I/S	<ul style="list-style-type: none"> Data Lake technical architecture <ul style="list-style-type: none"> Domain specification integration Metadata Management Ingestion Workflows Platform integration Data Lake business rules to ensure quality and integrity Data Lake Standard Operating Procedures (SOP's)
Technology Platform	Evaluate and provide options for the underlying technology platform. Implement the selected platform.	I/S	<ul style="list-style-type: none"> Technology platform assessment including: <ul style="list-style-type: none"> Options Pro's / Con's for each Assessment of fit for Penn Medicine environment Support needs for each Implementation of the selected technology platform

Data Domain Committees

Ambulatory Operations

- Operations
- Access
- Scheduling
- Productivity

Hospital Operations

- Throughput
- ED
- Peri-op
- Radiology

Clinical / Quality

- Mortality
- Complications
- Readmissions
- Safety
- Reported Metrics

Finance

- Hospital finance
- Ambulatory Finance

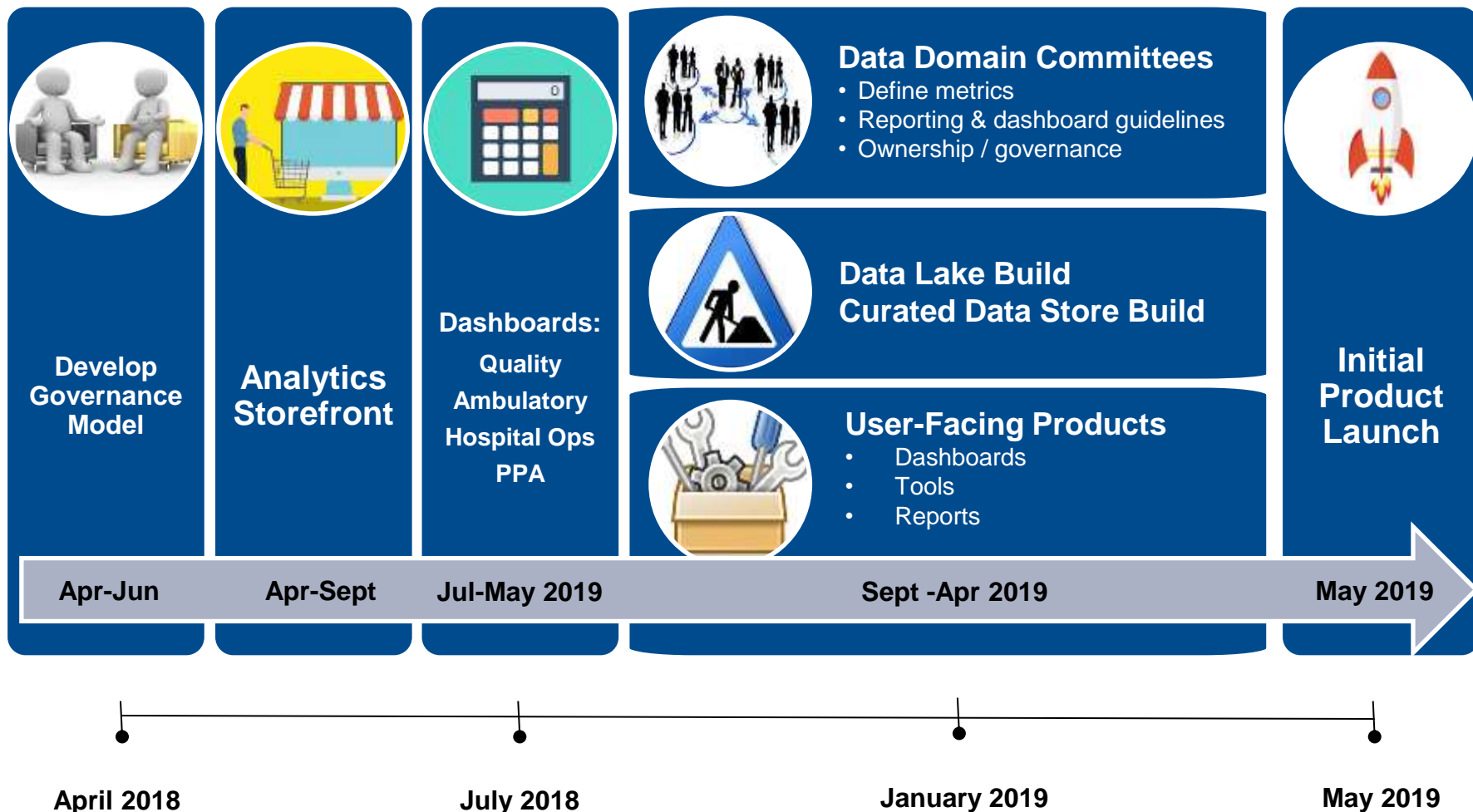
Marketing / Patient Experience

- Physicians
- Referrals
- HCAHPS

Research

- Research

Project Timeline



Storefront

Home

Featured Reports & Dashboards

Search Full Report Inventory

Education & Training

Measures & Metrics

Project & Report Requests

FAQs

Analytics Storefront **BETA**

NEED ACCESS?

FEEDBACK

The Analytics Storefront is an enterprise-wide home for commonly used reports and dashboards across our various platforms. Use the links below to access these reports and dashboards, as well as education and training around using the reports.

Please review these reports to see if they meet your needs before submitting a data request.



FEATURED REPORTS & DASHBOARDS

View Penn Medicine's reporting and dashboard products.



SEARCH FULL REPORT INVENTORY

Search through multiple reporting platforms and data sources.



MEASURES & METRICS

View Penn Medicine's list of key measures/metrics, and descriptions of how those measures are defined/calculated.



EDUCATION & TRAINING

Access education/training materials from various sources like Business Objects, Tableau, Epic Reporting, and more.



PROJECT & REPORT REQUESTS

Access the submission forms for report requests and project request form.

Home

Featured Reports & Dashboards

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Featured Reports & Dashboards

NEED ACCESS?

FEEDBACK

Service Line



Service Line Overview

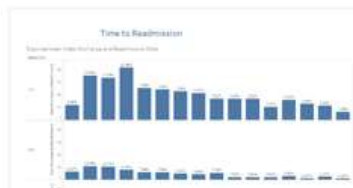


Service Line



Service Line Incentive

Value



Readmissions



PennCTMS Analytics



Hospital Billing Denials

- Home
- Featured Reports & Dashboards
- Search Full Report Inventory**
- Education & Training
- Measures & Metrics
- Project & Report Requests
- FAQs

Search Full Report Inventory

NEED ACCESS?

FEEDBACK

Using the Colored Filter Buttons below

After using the search reports bar you can filter the results by clicking on the colored buttons. The numbers in the black circles **24** positioned inside the buttons display the number of reports in that category.

FINANCE 3 **HOSPITAL OPERATIONS** 0 **AMBULATORY OPERATIONS** 0 **CLINICAL/QUALITY** 1
BUSINESS DEVELOPMENT 0 **RESEARCH** 0 **OTHER** 2

6 results returned

Report Name	Reporting Platform	Info
PCI Readmissions Report	Business Objects	i
CMI - All Payer Dynamic	Business Objects	i
CCBH Patient List	PennChart Reporting Workbench	i
Radiology Scheduling TOTALS	PennChart Reporting Workbench	i
Govt Reimb Transplant Discharges	Business Objects	i
Discharge Summary Room Charges	Business Objects	i

Storefront - Education

Ambulatory Analytics – Project Overview and Resources

An overview of the Ambulatory Analytics dashboards in PennChart.

- **Short, High-Level Learning Video**
- **Longer, In-Depth Functionality Video**
- **Epic Produced Videos Related to "Radar"**
 - Introduction to Radar
 - Personalization of Radar Dashboards
- **Data Handbook for Ambulatory Analytics**
 - Versions will be Updated Periodically
 - Contains a Large Amount of Information
 - Sortable & Searchable
 - eBook Format
- **User Forum & Project Team Resources**
 - Periodic Improvement Forums
 - Contact List in Data Handbook




Penn Medicine

REPORTING

Ambulatory Analytics – Project Overview and Resources

An overview of the Ambulatory Analytics dashboards in PennChart.

Categories

- Reporting
- Providers
- Nursing
- HIM
- Pharmacy
- Radiology

Reporting

1-9 of 17



- Short, High-Level Learning Video
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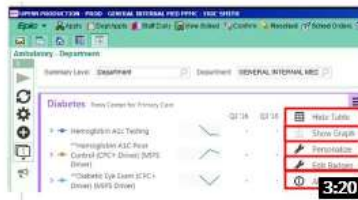
3:57

Ambulatory Analytics – Project Overview and Resources



4:04

Ambulatory Analytics – Accessing the Dashboard



3:20

Ambulatory Analytics – Configuring the Dashboard

Sort: Most Recent

Home

Featured Reports & Dashboards

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Education & Training

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FAQs

Measures & Metrics

NEED ACCESS?

FEEDBACK

ID	Measures	Owner (O) / Consulted (C)					
		Ambulatory Operations	Hospital Operations	Clinical Measures	Finance	Marketing/ VoP	Payer Data
M1	Inpatient Admissions		C	C	O		
M2	Patient Days		C	C	O		
M3	Length of Stay		C	C	O		
M4	30-Day Readmissions - All Cause		C	O	C		
M5	30-Day Readmissions - Unplanned		C	O	C		
M6	ED Encounters		C	C	O		
M7	Encounters	O	C	C	C		
M8	Office Visits	O		C	C		
M9	Procedures	O		C	C		
M10	Charges				O		
M11	Payments				O		
M12	Adjustments				O		
M13	Observed-to-Expected Mortality			O	C		

Home

Featured Reports & Dashboards

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FAQs

FAQS

NEED ACCESS?

FEEDBACK

I found a report in the Report Inventory that looks very useful. How can I request access to it?

Please see the red "[Need Access?](#)" button on the top of the [Search page](#). Please click that button and follow the instructions. Requests for access are currently processed manually by the group that owns the report, and review and approval may be needed to ensure security and appropriate access.

Is the Report Inventory a complete listing of all reports at Penn Medicine?

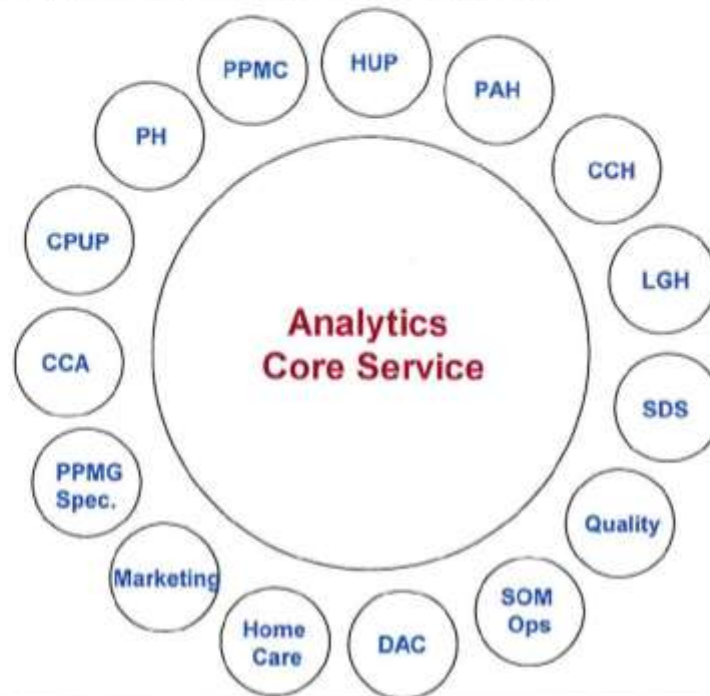
I need a report, and have searched the Report Inventory, but didn't find anything that seemed to meet my needs. How can I request creation of a new report?

My department has created reports that aren't shown here. Can we get them added to the Report Inventory?

Once I find the report I need, I should be able to just click a link and open the report. Why doesn't the site work this way?

Analytics as a core service

- Provide validated, structured data to analytics applications, analytics datamarts, and business intelligence and reporting tools
- Organize data to meet enterprise goals (utilization/costs across pathways/episodes, interventions to reduce readmissions, targeted LOS opportunities, managing patient populations)
- Support distributed analytic groups and analysts across the organization
- Foster self-service through a distributive analytics function across the organization, including training, communication, and best practices
- Identify trends and opportunities through analytic tools and dashboards



Ongoing Support

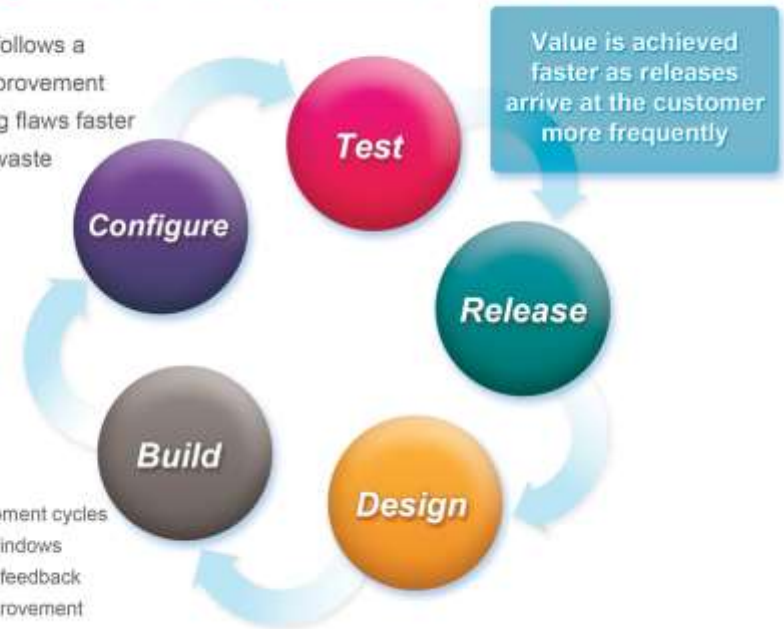
- ◆ Move from “project” to “product” mentality
- ◆ Regular release cycles
- ◆ Need to organize teams for “agile” development
- ◆ Need to assign “project managers” as “product managers”
- ◆ Big challenge for the PMO

Agile Development Process

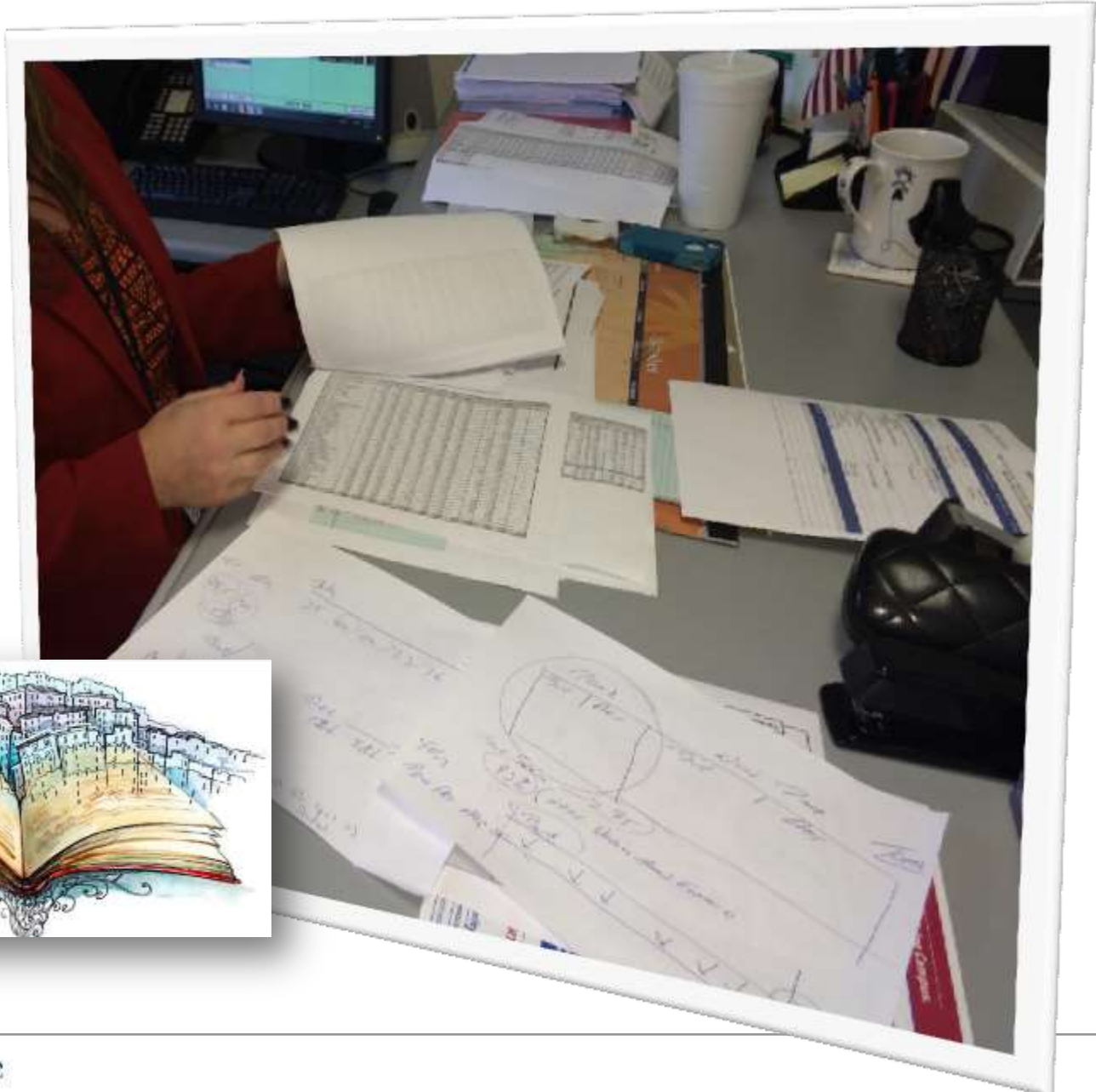
Development follows a continuous improvement cycle, exposing flaws faster and reducing waste

Advantage:

- Shorter development cycles
- Wider market windows
- Early customer feedback
- Continuous improvement



ROI Stories – Denials Analysis





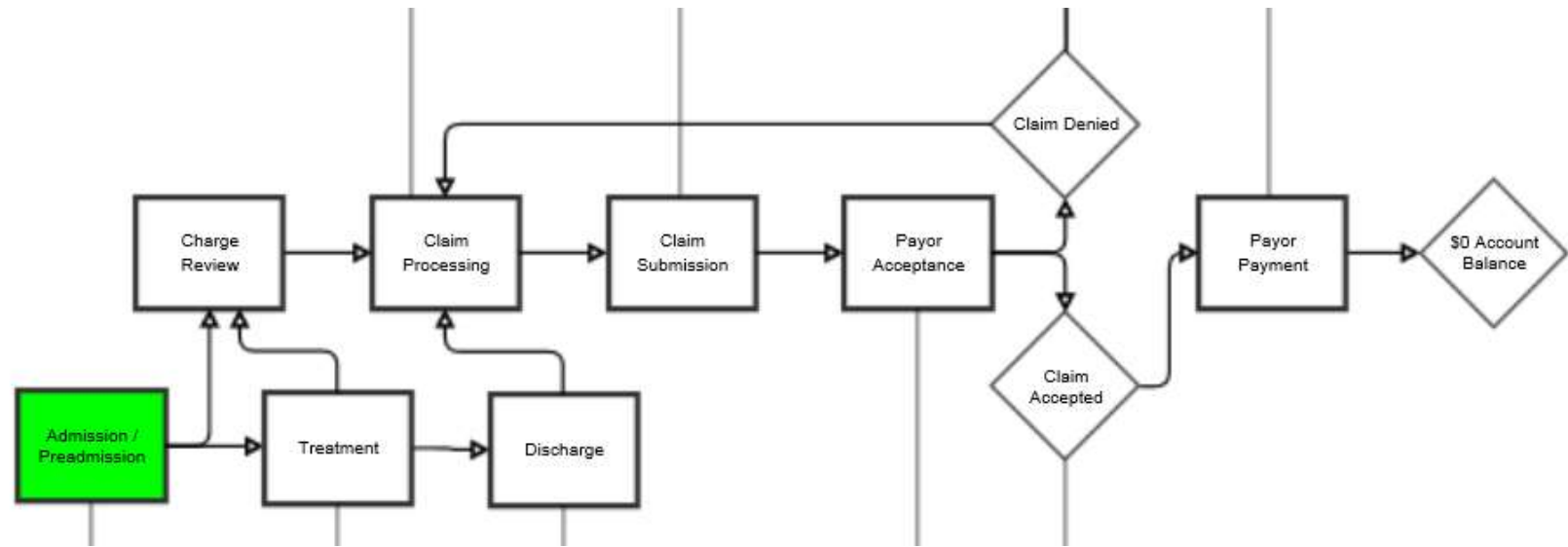
Claims

- Total PB \$ Claims/ year ~\$2B
- Total PB \$ Denials/year at historical rate of ~10% = ~\$200M

Opportunity

- Too much Data for them to process without use of an organized approach and system.
- Struggle with teasing out information from 835 to find root cause of a Denial
- Some common Denial reasons are:
 - Wrong coding
 - Service is not Medical necessity
 - Wrong insurance vendor
 - No pre-certification
- Looking for actionable denials data, by payor, by specialty, by department...other Dimensions

Rev Cycle Process



Denials Explorer

SAP HOSPITAL BILLING D... 10-13

Wolfram Eric, Andy Applications Financial Help menu Log Off

Penn Medicine

Measures (2) Entity (2) Discharge Date (1) Data Date Range: 9/22/16 - 9/22/18

Measures (2) Entity (2) Discharge Date (1)

Choose at least three filters to enable detail button

Show Act. Details

Search

Entity	Total Charges	Total Adjustments	Total Collected	Current Expected Payment	Initial Expected Payment	Outstanding Net Revenue	Final Denial Write-Off Amount
Measures	669,682.42	-114,905.45	122,232,040.46			32,040.46	-251.10
	211,142.96	-168,915.45	33,676,402.69			75,402.59	-135.11

Search

DIMENSIONS

- Entity
- Patient Facility
- Principal Diagnosis
- Admission Date
- Initial Submit Date
- DRG Code
- Discharge Date
- Payer Group
- Financial Class
- Discharging Dept
- Insurance Plan
- Discharge Status
- Initial Payment Date
- Attending Physician
- Visit Type
- CDH MRN
- PHVC MRN
- PAH MRN
- HUP MRN
- MCP MRN
- Hospital Service
- Admitting Depart
- Admitting Service
- Current Insurance
- Measures

COLUMNS

- Measures

ROWS

- Entity

Denials Explorer

SAP HOSPITAL BILLING D... Welcome: **CRJ, Andy** | Applications | Preferences | Help menu | Log off

Penn Medicine

Measures (2) Entity (1) Discharge Date (1) Payor Group (1)

Entity: HUP Discharge Date: 201801-20180901 Payor Group: IBC

Data Date Range: 9/22/18 - 9/22/18

Choose at least three filters to enable detail button

Show Act. Details

Entity	Discharge Date	Payor Group	Total Charges	Total Adjustments	Total Collected	Current Expected Payment	Initial Expected Payment	Outstanding Net Revenue	Final Denial Write-Off Amo
2018		IBC	355.70	231.32	570.57			570.57	
2018		IBC	981.99	854.24	884.06			884.06	
2018		IBC	426.36	590.23	346.53			346.53	
2018		IBC	384.06	843.85	610.12			610.12	
2018		IBC	597.52	315.89	436.87			436.87	
2018		IBC	524.12	206.09	664.13			664.13	
2018		IBC	806.14	672.22	329.52			329.52	
2018		IBC	871.55	632.45	706.78			706.78	
2018		IBC	977.22	181.12	849.25			849.25	
2018		IBC	611.52	394.53	276.20			276.20	
2018		IBC	791.66	942.97	030.04			030.04	
2018		IBC	547.71	507.45	236.12			236.12	
2018		IBC	064.46	405.74	430.16			430.16	
2018		IBC	365.98	865.89	264.58			264.58	
2018		IBC	139.00	792.03	118.23			118.23	
2018		IBC	747.84	504.61	639.66			639.66	
2018		IBC	324.14	1911.11	707.65			707.65	
2018		IBC	819.54	905.43	518.43			518.43	
2018		IBC	103.83	436.57	266.99			266.99	
2018		IBC	317.48	999.82	409.44			409.44	
2018		IBC	873.07	042.76	035.63			035.63	
2018		IBC	405.35	674.96	513.97			513.97	
2018		IBC	530.45	995.95	644.33			644.33	
2018		IBC	989.23	845.15	777.84			777.84	
2018		IBC	661.56	823.89	901.95			901.95	
2018		IBC	015.32	648.54	326.15			326.15	
2018		IBC	505.46	205.01	419.58			419.58	
2018		IBC	877.43	080.01	640.80			640.80	
2018		IBC	319.00	797.13	480.28			480.28	
2018		IBC	143.23	279.69	313.18			313.18	
2018		IBC	207.80	429.27	717.67			717.67	
2018		IBC	697.95	883.17	919.68			919.68	

Entity: HUP

ROWS: Entity, Discharge Date, Payor Group

Denials Explorer

SAP | Welcome: **CRJ, Andy** | Applications | Preferences | Help menu | Log off

Home | Documents | HOSPITAL BILLING D... | Penn Medicine

Measures (2) | Entity (1) | Discharge Date (1) | Payer Group (1) | Data Date Range: 9/22/16 - 5/22/18

Export | Close

Select Account for Transaction Details

Account Name	Patient Name	Total Charges	Total Adjustments	Total Collected	Patient Responsibility	Current Expected Payment	Initial Expected Payment	Subsequent Patient Responsibility	Outstanding Net Revenue
		5.00	0.85	9.00					8.00
		11.00	6.85	2.34					2.34
		2.00	7.73	7.41					7.41
		8.00	4.00	2.00					2.00
		4.00	4.00	0.00					0.00
		5.00	0.85	2.34					2.34
		11.00	6.85	2.34					2.34
		5.00	0.85	2.34					2.34
		6.00	0.32	5.68					5.68
		2.00	1.26	4.13					4.13

Account Number

Select Transaction for Remit Details

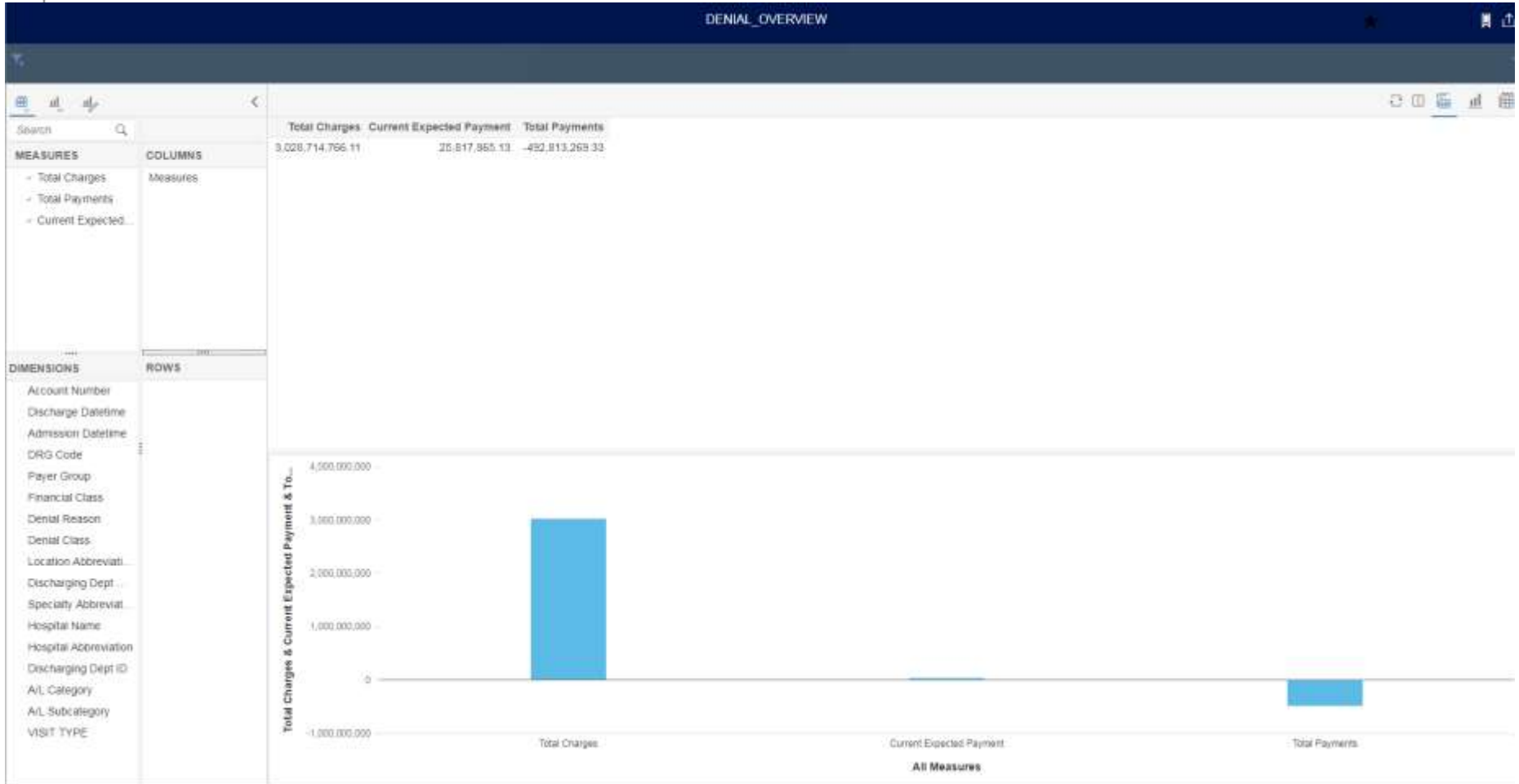
TX_ID	Claim Payment Date	Claim Status Code	CPT Code	Procedure Description	Remit Code Yes/No Indicator	Line Item Charge Amount
			9900001	HB SYSTEM DEBIT ADJUSTMENT	No	
			3000	CONTRACTUAL ADJUSTMENT (INSURANCE)	No	
		Processed as Primary	2000	INSURANCE PAYMENT (INSURANCE)	Yes	

Remit Transaction ID: []

Line Number: 1

Remit Code Name	97-PMT INCL IN PMT FOR OTHR SVC/PIX	M86 DENIED, PMT MADE FOR SIMILAR PX.
Remit Code Group	BUNDLED SERVICES OR GLOBAL PERIOD NOT OBSERVED	DUPLICATE CLAIM/CHARGE
CARC RARC Indicator	RARC	RARC
Remit Action Name	Remark	Remark
Remit Code Amount	[]	[]

Denials Explorer



Measure	Value
Total Charges	3,028,714,766.11
Current Expected Payment	25,817,855.13
Total Payments	-492,813,269.32

Denials Explorer

DENIAL_OVERVIEW

MEASURES	COLUMNS	Denial Reason	A/L Category	Total Charges	Total Payments	Current Expected Payment
- Total Charges	Measures	11-DX INCONSISTENT WITH PX	DENIED	2,921,959,001.26	-491,158,802.51	17,500,717.35
- Total Payments		139-CONTR. FUNDING AGREEMT -*	DENIED	73,202.59	-5,965.07	-98.32
- Current Expected Pa...		15-DNIED, AUTH # MISSING OR INVALID	DENIED	3,207,519.95	-419,478.47	158,332.62
		16-LACKS INFO NEEDED FOR ADJUDICATION	DENIED	76,400,296.27	-3,472,659.79	5,218,682.77
		222-EXCEEDS MAX NUMBER OF HOURS/DAY/UNITS	DENIED	832,137.14	-81,058.41	-4,001.73
		238-CLAIM SPANS ELIGIBLE AND INELIGIBLE PERIODS OF CVG	DENIED	60,514.15	0.00	3,739.44
		253-SEQUESTRATION - REDUCTION IN FEDERAL SPENDING	DENIED	315,422,625.13	-5,613,779.02	-2,048.05
		26-EXPENSES INCURRED PRIOR TO COVERAGE	DENIED	22,296,218.76	-230,143.84	478,169.40
		27-EXPENSES INCRRD AFTR CVG TERMINATED	DENIED	7,770,032.05	-767,909.12	486,180.41
		31-DENIED, PAT CANT BE ID AS OUR INSRD	DENIED	10,834,646.69	-880,490.27	552,207.26
		32-DEPENDENT NOT ELIG FOR CVG	DENIED	3,353,349.32	-223,295.56	434,373.94
		33-DENIED, INSRD HAS NO DEPENDENT CVG	DENIED	562,925.21	-47,732.86	46,341.39
		35-BENEFIT MAXIMUM HAS BEEN REACHED	DENIED	207,975.55	0.00	1,316.00
		50-NON-CVD, NOT DEEMED MED NECESSITY	DENIED	11,699,656.81	-2,300,374.27	619,029.84
		51-NON-CVD, PRE-EXISTING CONDITION	DENIED	29,446.00	0.00	12,199.51
		78-NON-CVRD DAYS/ROOM CHARGE ADJUSTMENT	DENIED	10,673,803.30	-595,380.91	4,402,163.13
		96-NON-COVERED CHARGES	DENIED	80,073,410.89	-5,906,051.88	2,945,009.63
		97-PMT INCL IN PMT FOR OTHR SVC/PX	DENIED	2,659,321.75	-356,563.62	1,808.54
		Overall Result		3,477,816,877.88	-514,686,188.60	32,239,001.20

2) To do this we move desired dimensions from dimensions area (red arrows) to row area (blue arrows) to add columns to the records

1) In this example, we would like to see a breakdown on the charges by "Denial Reason"

Denials Explorer

DIMENSIONS

- A/L Category
- A/L Subcategory
- Account Number
- Admission Datetime
- Denial Class
- Denial Reason
- Discharge Datetime
- Discharging Dept ID
- Discharging Dept Name
- DRG Code
- Financial Class
- Hospital Abbreviation
- Hospital Name
- Location Abbreviation
- Payer Group
- Specialty Abbreviation
- VISIT TYPE

DENIAL OVERVIEW

Account Number	Hospital Name	Denial Class	Total Charges	Total Payments
		Result	274,293,980.34	-63,478,807.47
		COVERAGE TERMINATED/ NO COVERAGE	1,422,231,960.33	-215,836,124.31
		CPT/DIAGNOSIS MISMATCH	10,262,721.65	-297,547.29
		INELIGIBLE DEPENDENT/ INELIGIBLE DUE TO AGE	27,634.00	-660.93
		INFORMATION-ONLY CODES	1,906,047.70	-13,304.93
		MAXIMUM EXCEEDED/ BENEFITS EXHAUSTED	157,664,504.64	-4,902,491.40
		NOT APPLICABLE	207,975.55	0.00
		MEDICAL NECESSITY NOT DOCUMENTED	8,112,920.67	-2,107,937.19
		NEED ADDITIONAL/ CORRECTED INFO (MED AND NON-MED)	41,206,620.65	-1,577,223.58
		NO PRIOR AUTHORIZATION	737,803.20	-75,921.75
		NONCOVERED PROCEDURES/ SERVICE - PATIENT NOT RESP*	39,046,896.01	-2,406,032.94
		NOT APPLICABLE	6,799,623.73	-546,266.32
		PATIENT NAME/NUMBER MISMATCH	3,406,733.09	-292,645.28
		Result	1,691,611,431.22	-228,106,685.92
		HUP	705,601,754.06	-128,796,341.48
		BUNDLED SERVICES OR GLOBAL PERIOD NOT OBSERVED	1,971,495.54	-190,850.71
		COVERAGE TERMINATED/ NO COVERAGE	4,511,053.21	-613,979.11
		INELIGIBLE DEPENDENT/ INELIGIBLE DUE TO AGE	1,502,978.01	-234,317.31
		INFORMATION-ONLY CODES	83,663,411.29	-1,659,811.91
		MEDICAL NECESSITY NOT DOCUMENTED	1,378,513.95	-74,300.25
		RAH		

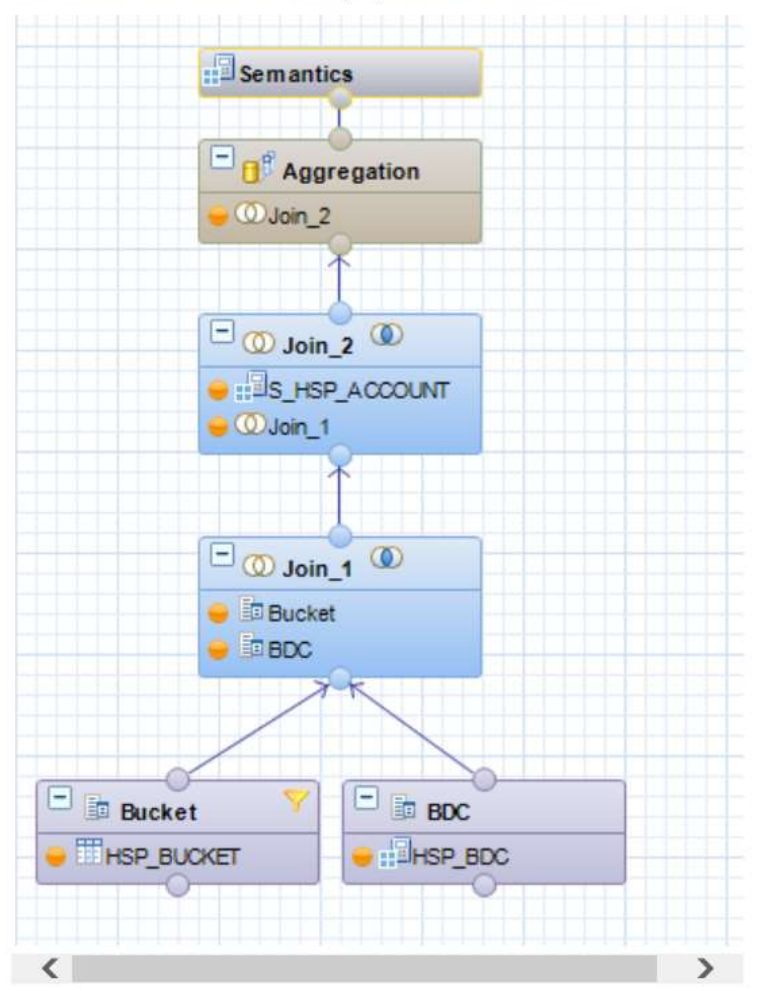
In this example, we are looking at charges by Denial Class so our result set is rather large. We would like to focus on 'HUP', to do this we click on the filter on the upper left and choose Hospital Name. A multi-select pop-up will appear with all possible selections. Choose HUP and click 'OK'

Denials Explorer

		Hospital Abbreviation	Denial Class	Account Number	Total Charges	Current Expected Payment	Total Payments	Total Adjustment	Denied Amount
				770000246846	1,217,631.76	0.00	0.00	0.00	1,214,151.76
				770000254795	12,203.00	1,024.16	0.00	-10,968.84	12,013.00
			NEED ADDITIONAL/ CORRECTED INFO (MED AND NON-MED)	770000267112	130,516.09	0.00	0.00	0.00	134,447.09
				770000267971	328,270.00	0.00	0.00	-558.00	321,613.00
				770000304170	133,171.90	4,345.28	-11,142.41	-117,684.21	-115,144.90
			Result		41,206,820.85	3,129,300.73	-1,877,223.68	-19,482,022.66	31,742,893.86
				10000507584	15,088.00	5,411.76	0.00	-9,676.24	15,088.00
				10001236124	24,148.00	6,391.15	0.00	-17,756.85	24,148.00
				10002964730	47,867.00	0.00	-9,023.67	-38,306.43	0.00
				10003740031	177,836.10	0.00	-34,374.02	-142,067.08	-5,734.02
			NO PRIOR AUTHORIZATION	10003841281	49,056.00	12,249.64	0.00	-32,729.36	44,979.00
				10004259917	34,596.10	0.00	-6,226.44	-27,809.66	3,905.26
				10004791388	264,047.00	140.39	-15,033.62	-248,672.79	54,464.18
				10005307335	87,688.00	0.00	-11,261.90	-75,031.10	14,073.10
				770000257451	37,475.00	6,486.95	0.00	-29,801.05	35,268.00
			Result		737,803.29	30,679.89	-75,921.75	-621,080.96	186,221.82
				255213920	60,476.20	0.00	0.00	-60,476.20	26,452.92
				256193729	1,148,861.03	0.00	-175,529.03	-956,396.00	3,320.00
				256383771	476,571.00	0.00	0.00	-476,571.00	118,610.00
				256430663	392,031.40	95.60	-149,705.62	-231,260.98	70,919.00
				256523076	51,861.00	7,239.38	0.00	-44,621.62	-36,340.00
				256529969	149,597.60	0.00	-107,030.00	-42,682.60	45,982.70
				256532649	92,933.00	0.00	-21,800.72	-71,132.28	332.00
				256538903	26,908.00	-121.42	-6,177.19	-20,852.24	-9,559.00
			NONCOVERED PROCEDURES/ SERVICE - PATIENT NOT RESP*	256570633	218,608.15	0.00	-72,196.25	-146,409.90	0.00
				256571771	75,259.20	1,270.42	-12,674.28	-61,108.50	-36,679.20
				256654460	215,571.00	29,044.57	0.00	-67,372.43	1,593.00
				256669607	53,018.55	0.00	0.00	-53,018.55	25,164.51
				256669948	127,236.05	-459.97	-24,505.69	-101,845.43	-91,831.00
				256689672	82,828.65	0.00	0.00	-82,828.65	26,999.50
				256722077	362,545.00	0.00	0.00	-362,545.00	0.00

Model the Denials

This view is the main view that populates the front end



DACHBA.CORE-S_HSP_ACCOUNT	
TOTAL_ACCOUNT_BALANCE	TOTAL_ACCOUNT_B...
PRINCIPAL_DIAGNOSIS_CODE	PRINCIPAL_DIAGN...
TOTAL_ADJUSTMENTS	TOTAL_ADJUSTME...
TOTAL_PAYMENTS	TOTAL_PAYMENTS
BENEFIT_PLAN_NAME	BENEFIT_PLAN_NAME
PRIMARY_HOSPITAL_SERVICE_DESC	PRIMARY_HOSPITA...
CURRENT_EXPECTED_AMT	CURRENT_EXPECTE...
INITIAL_EXPECTED_AMT	INITIAL_EXPECTED...
TOTAL_CHARGES	TOTAL_CHARGES
DEPARTMENT_NAME	DEPARTMENT_NAME
PAT_SEX_C	PAT_SEX_C

Join_1	
HSP_ACCOUNT_ID	HSP_ACCOUNT_ID
BUCKET_ID	BUCKET_ID
BKT_NUM	BKT_NUM
BKT_TYPE_HA_C	BKT_TYPE_HA_C
PAYOR_ID	PAYOR_ID
BENEFIT_PLAN_ID	BENEFIT_PLAN_ID
CURRENT_BALANCE	CURRENT_BALANCE
PREVIOUS_CREDITS	PREVIOUS_CREDITS
CHARGE_TOTAL	CHARGE_TOTAL
CHARGE_REV_TOTAL	CHARGE_REV_TOTAL
PAYMENT_TOTAL	PAYMENT_TOTAL
ADJUSTMENT_TOTAL	ADJUSTMENT_TOTAL
REMIT_CODE_NAME	REMIT_CODE_NAME
REASON_CODE	REASON_CODE

Bucket	
BUCKET_ID	BUCKET_ID
HSP_ACCOUNT_ID	HSP_ACCOUNT_ID
BKT_NUM	BKT_NUM
BKT_TYPE_HA_C	BKT_TYPE_HA_C
PAYOR_ID	PAYOR_ID
BENEFIT_PLAN_ID	BENEFIT_PLAN_ID
CURRENT_BALANCE	CURRENT_BALANCE
PREVIOUS_CREDITS	PREVIOUS_CREDITS
CHARGE_TOTAL	CHARGE_TOTAL
CHARGE_REV_TOTAL	CHARGE_REV_TOTAL
PAYMENT_TOTAL	PAYMENT_TOTAL
ADJUSTMENT_TOTAL	ADJUSTMENT_TOTAL
BKT_TYPE_HA_C_1	BKT_TYPE_HA_C_1
HSP_ACCOUNT_ID_1	HSP_ACCOUNT_ID_1
DEDUCTIBLE_AMOUNT	DEDUCTIBLE_AMOUNT
BKT_TYPE_HA_C_2	BKT_TYPE_HA_C_2
BKT_TYPE_HA_C_3	BKT_TYPE_HA_C_3

BDC	
RMC_EXTERNAL_ID	RMC_EXTERNAL_ID
REMIT_CODE_NAME	REMIT_CODE_NAME
BDC_YearMonth	BDC_YearMonth
RPT_GROUP_TITLE	RPT_GROUP_TITLE
SOURCE_PMT_ID	SOURCE_PMT_ID
BDC_CREATE_DT	BDC_CREATE_DT
DENIAL_TYPE_C	DENIAL_TYPE_C
EXTL_REASON_CODE	EXTL_REASON_CODE
DEN_RMK_CORR_TYP_C	DEN_RMK_CORR_TYP_C
BDC_ID	BDC_ID
LIABILITY_BKT_ID	LIABILITY_BKT_ID
Denial_Count_1	Denial_Count_1
Year	Year
Year_Month	Year_Month
Denial_Count	Denial_Count

DISCHARGE...	HSP_ACCOUNT_ID	HSP_ACCOUNT...
HSP_ACCOUNT_ID	IP_ADMIT_DATE_TIME	IP_ADMIT_DATE_TI...
IP_ADMIT_DATE_TIME	DEPARTMENT_ID	ADMITTING_DEPAR...