



## **Medicaid Program Integrity will never be the same: How pre-pay predictive analytics transforms the cycle of program integrity**

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Jeremy Hill, Biostatistician

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# Our goal today

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- How pre-payment can improve overall program integrity
- Discuss the value pre-pay provides to a Medicaid program (ROI)
- Bust the pre-payment myths

## *How we'll do it:*

- Show how Optum Pre-payment Review Solution works
- Describe our experience with pre-payment review
- Case studies: examples of pre-payment review finds
- Share best practices

# Post-payment review

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- Uses SUR studies, tips, referrals and exception analytics
- Cost recovery from providers
- Problems can persist undetected longer
- Overpayments can be higher and more difficult to recover
- Feedback and education one provider at a time
- Delayed feedback to analytics and policy
- Focused on more traditional issues
- May produce pre-payment leads/edits in some cases

# What effective pre-payment review can do for a state

## **Determines risk earlier — before payment**

- Prevent improper payments through up-front detection
- More rapidly identify provider and recipient fraud

## **Detect a greater range of fraud and billing errors**

- Predictive analytics
- Detailed analytical results and drill-down analysis functionality

## **Change billing and utilization patterns**

- Focused claim reviews
- Better provider education through flexible workflows and data-driven profiles

## **Improved post-payment review results**

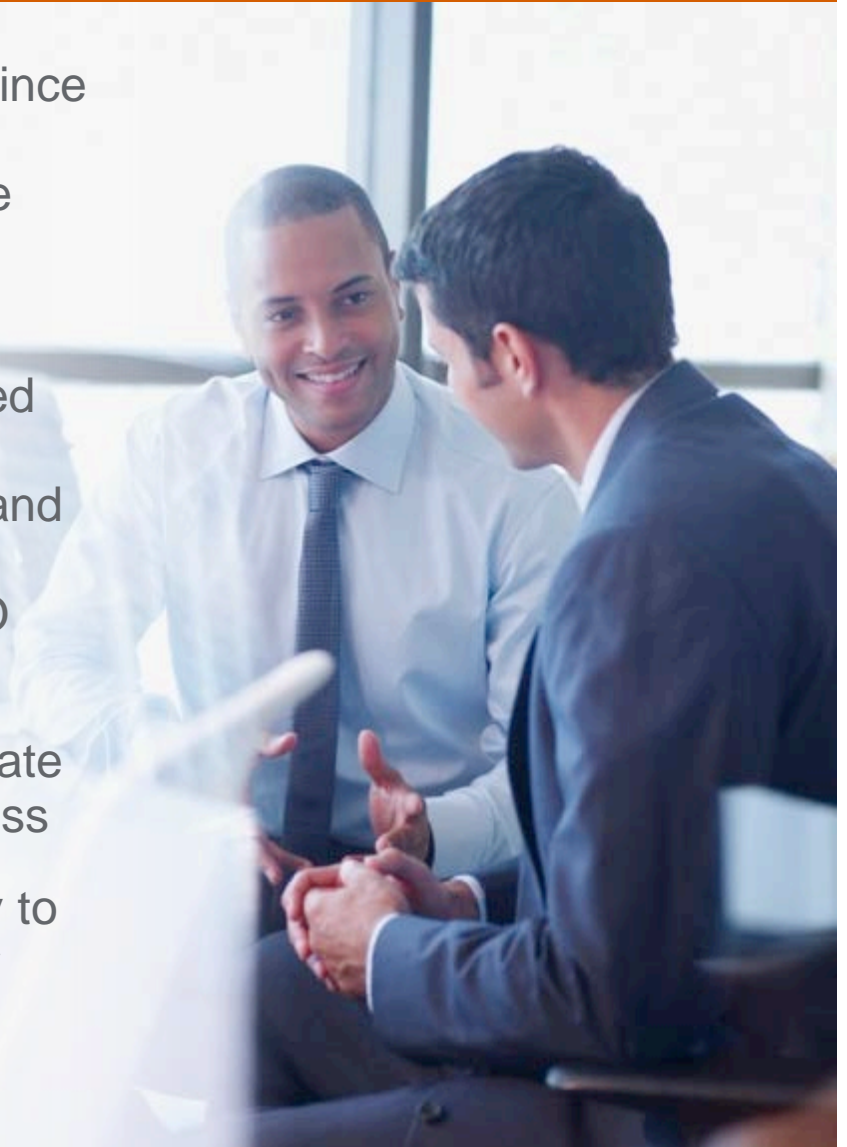
- Post-payment opportunities identified by pre-payment analytics
- Errors identified by pre-payment review that reveal post-payment opportunities

## **Opportunity to implement system with funding**

- Comply with SBJA mandate
- Make use of federal funds through APD process

# Pre-payment in high-percentage managed care states

- Pre-payment impact will be different since only carved out FFS claims would be subject to pre-payment review and the types of service (transportation, pharmacy, behavioral health, etc.)
- Encounter data can be still be analyzed and scored by predictive pre-payment analytics for a variety of cost, quality and access issues, as well as to provide indicators of the effectiveness of MCO program integrity efforts
- State might require that MCO's to initiate pre-payment solutions into their process
- MCO can also realize that is their way to savings and profit and do it voluntarily





### Total Claim View

Claim ID: \*  Finish

Model Risk Score: **943**

SCORE REASON	DESCRIPTION	CONTRIBUTION
1:	Suspicion of Upcoding	62.17%
2:	Unusual Use of Modifiers	15.03%
3:	Near Duplicate Claims	9%

#### Recipient / Provider

RECIPIENT ID	DOB	GNR	AGE	CITY	STATE	CLAIM ID	Ln Num	Cpt Ctgry Num	MINUTES	PROV ID	PROV NM	Procedure Code	PROV CITY	Bill Amt	Pd Amt
00000000000	01/01/2099		0	City	ST			58	40	00000000	Prov Name	99215	City		

#### Diagnosis / Procedure

Dx1	Dx2	Dx3	Dx4	Srvc Frm Dt (H)	Srvc To Dt (H)	Srvc Frm Dt (L)	Srvc To Dt (L)	Px1	Px2	Px3
								25		

#### Model Risk Score Details

Reason 1: Suspicion of Upcoding Contribution: 62.17%	Reason 2: Unusual Use of Modifiers Contribution: 15.03%	Reason 3: Near Duplicate Claims Contribution: 9%
1: CODE SET billing level higher than 84% of peers 2: Code set: 99211,99212,99213,99214,99215 3: Code level billed: 5 4: Levels in code set: 5 5: Provider billing at level 5: 96% of lines 6: Peer avg billing at level 5: 12% of lines 7: Provider billing: 0%, 0%, 1%, 3%, 96% 8: Peer avg billing: 3%, 2%, 28%, 55%, 12% 9: Providers in peer group: 172 10: Peers billing in code set: 133 11: Service lines billed in code set: 114	1: Scored Modifier: 25 2: Modifier descr: Significant, Separately Identifiable Evaluation and 3: Procedure billed: 99215 4: Procedure description: Office/outpatient visit 5: Provider frequency of modifier for procedure: 88% 6: Peer median frequency of modifier for procedure: 5% 7: Peers billing modifier with procedure: 24 8: Provider lines with modifier and procedure: 97 9: Provider Specialty: Pediatrics	1: Matching claim: TCN line 2: Same TCN as billed service: Yes 3: Matching claim provider: 4: Same provider as billed service: Yes 5: Days between claims: 0 6: Billed procedure: 99215 7: Billed procedure description: Office/outpatient visit 8: Matching claim procedure: 9: Matching claim procedure description: 10: Matching diagnoses: 1 of 1 billed 11: Provider Specialty: Pediatrics

Scoring, flags and more: how an effective case management system works

# Optum experience with pre-pay detection and review

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More than 10 years of demonstrated successful cost-avoidance experience in health care combining:

- ✓ **Powerful pre-payment analytics** — highly accurate and comprehensive
- ✓ **Proven Medicaid retrospective review analytics** adapted for pre-payment cost avoidance
- ✓ **Optum has over 10-years' experience** in pre-payment cost avoidance for program integrity
- ✓ **Years of experience applying risk scoring solutions** to health care claims
- ✓ **Currently monitoring billing for 60 million** Commercial, Medicare Advantage and Medicaid Managed Care recipients for fraud, waste and abuse cost avoidance

# What have we learned from that?

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- Key attributes of effective pre-payment analytics

- An all-of-the-above detection strategy
  - Different analytics to identify different billing and utilization issues
  - Combining analytics to produce a single result
- Analytics tuned to each client's program and data
  - Increases detection accuracy
  - Reduces provider abrasion
- Analytics that can adapt rapidly to feedback and changing patterns
  - Automated feedback
  - Rapid retraining
  - User-specified edits and changes
  - Coding that allows customization of key parameters





## What have we learned from that? (continued)

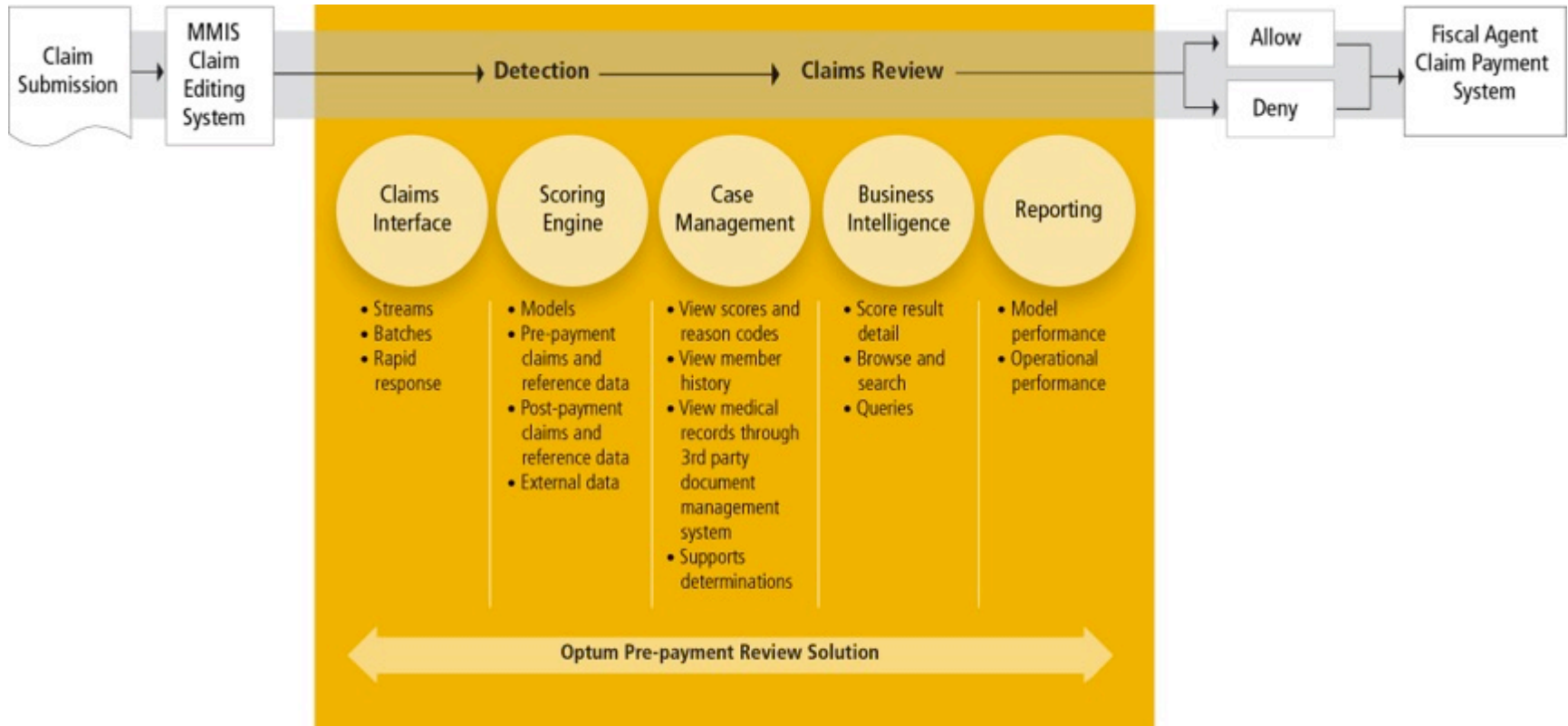
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- Key attributes of effective pre-payment review

- Flexible workflows to suit the action to the problem
  - Single claim denial
  - Provider education
  - Fraud investigation
  - Referral for post-payment review
- Empowered review staff
  - Training on analytics results and processes
  - Interfaces that allow quick capture of feedback
  - Seamless user experience to maximize efficiency and pursue leads
- Comprehensive reporting
  - Measure savings and ROI
  - Monitor accuracy of each analytical component
  - Quantify operational efficiency to target training and new features

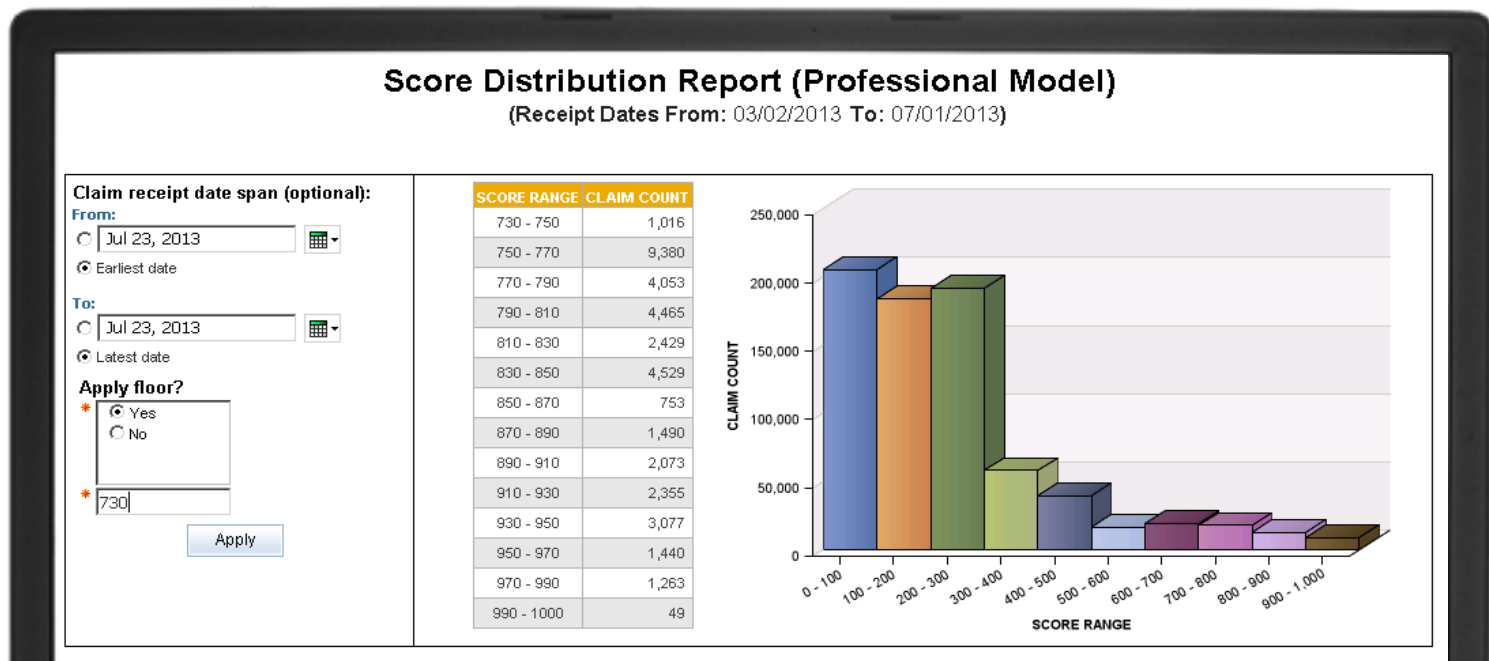


# Components of Optum Pre-payment Review Solution



# Optum professional claims risk scoring model

- Multivariate, unsupervised scoring model
- Data-driven peer groups and model histories
- Known suspect patterns targeted by variables
- Combines variable results into a single numeric risk score
- Detailed score reasons explain each claim-level result



# Detailed explanations of model findings



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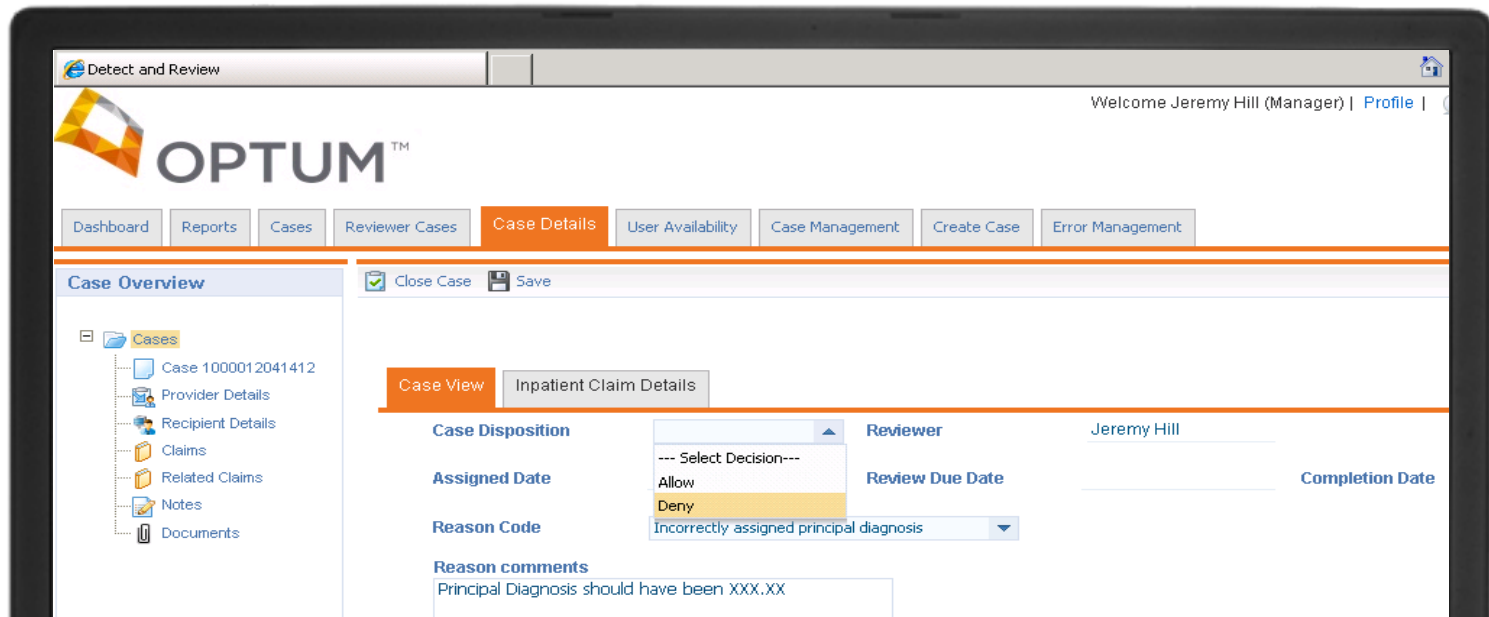
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# Optum Case and Workflow Management Component

- Highly configurable, Web-based user interface
- Supports a variety of workflows based on analytics results
- Seamless connectivity to detailed results and claims histories
- Users can quickly convey analytics feedback
- Includes optional letter generation and document storage functions
- Provides access to analytics configuration and setting alerts





# Optum Case and Workflow Management Component

Detect and Review

Welcome Jeremy Hill (Manager) |

**OPTUM™**

Dashboard Reports **Cases** Reviewer Cases User Availability Case Management Create Case Error Management

Filter By Case Creation between( 14 Jul 2013 12:00 - Today) ✕ Case State(In Non-Medical Records Review) ✕ Reviewer(Jeremy Hill) ✕

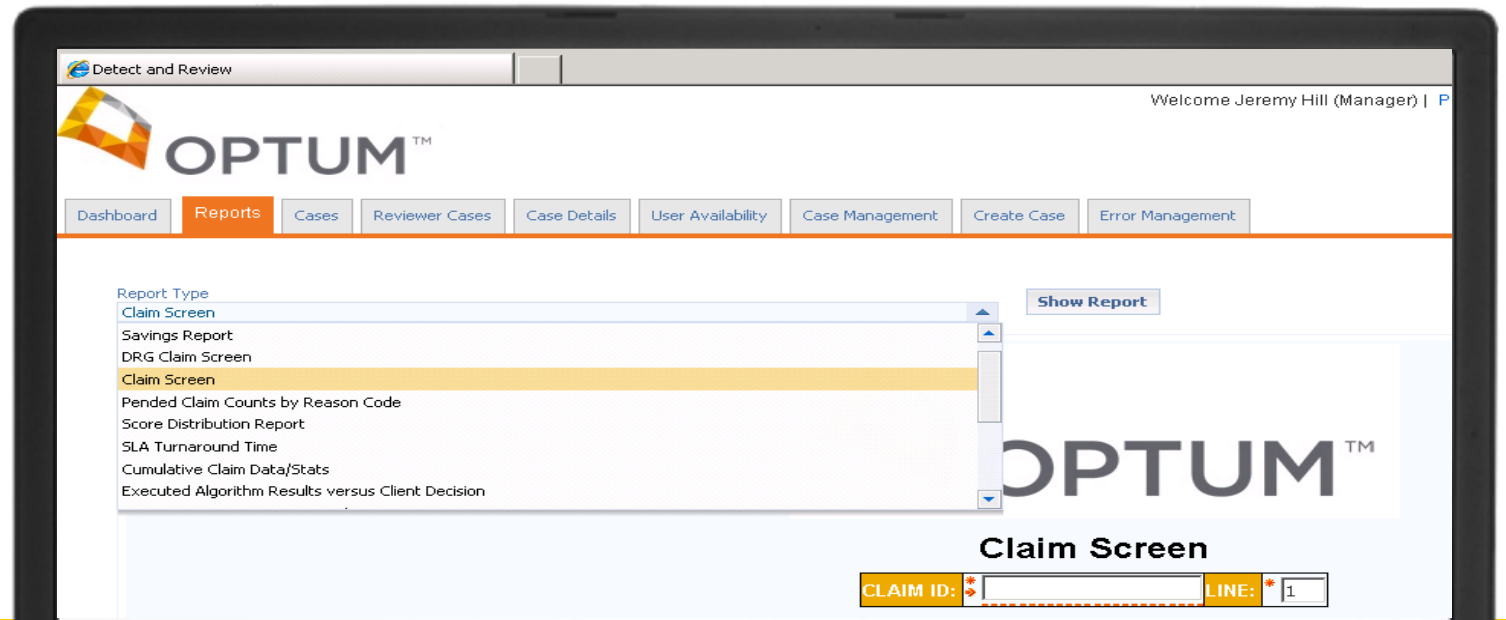
**Quick Filters**

(Re) Assign Reviewer Set Priority Refresh Advanced Filters

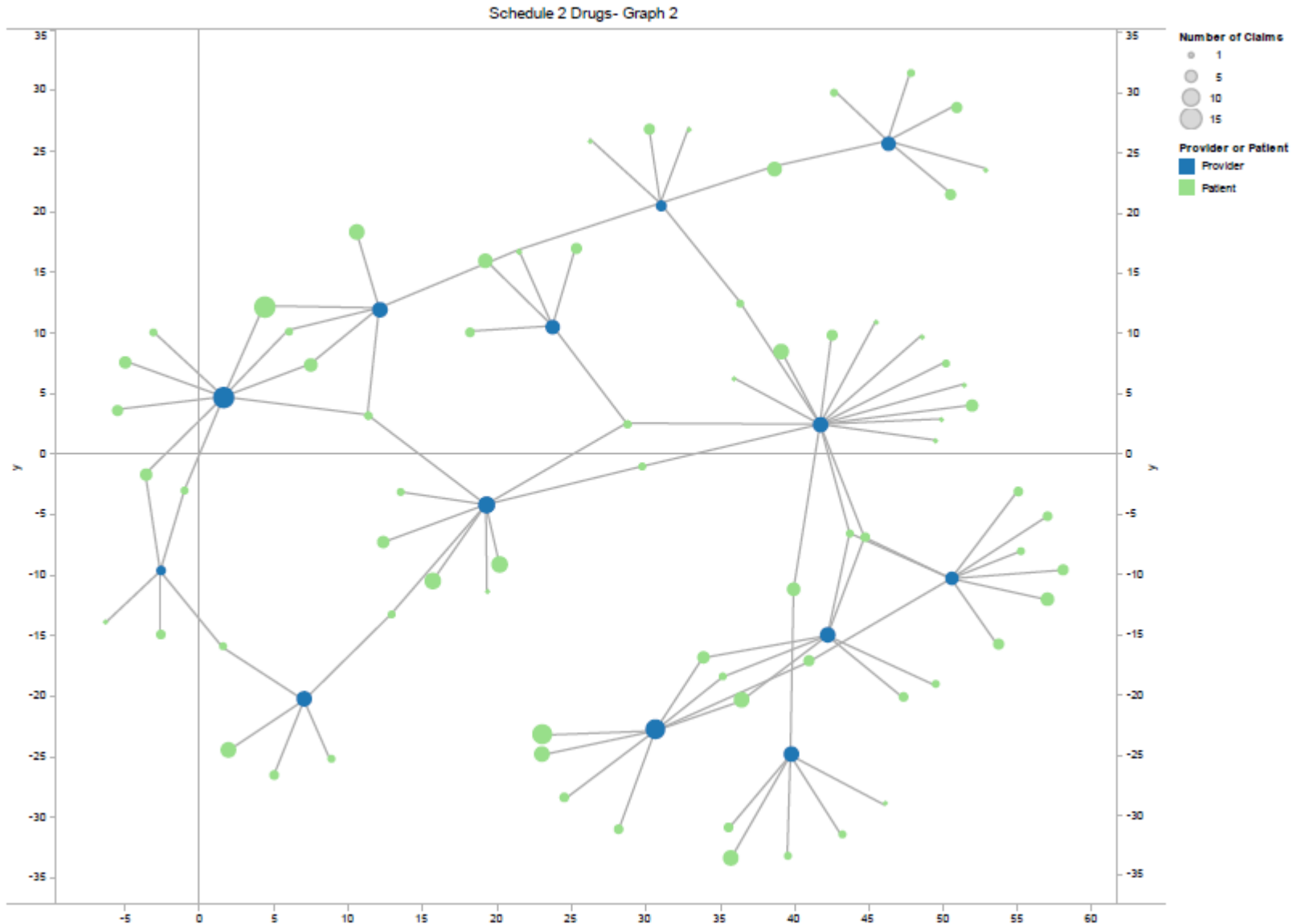
<input type="checkbox"/>				Claim ID	Claim Type	Case State	Status	Date Assigned	Due Date	
<input type="checkbox"/>					<a href="#">1000007566546</a>	OUTPATIENT CLAIMS	In Non-Medical Records Review	P	16 Jul 2013 11:46	
<input type="checkbox"/>					<a href="#">1000000004945</a>	OUTPATIENT CLAIMS	In Non-Medical Records Review	P	16 Jul 2013 12:00	
<input type="checkbox"/>					<a href="#">1000012041412</a>	INPATIENT CLAIMS	In Non-Medical Records Review	P	16 Jul 2013 11:21	
<input type="checkbox"/>					<a href="#">1000011859462</a>	INPATIENT CLAIMS	In Non-Medical Records Review	P	16 Jul 2013 11:22	

# Optum Business Intelligence Component

- View detailed model and analytical results
- Human-driven query functions to follow a variety of leads
  - Access to all claims and references data
  - External datasets used by analytics or investigative functions
- Provider billing profiles and peer comparison
  - Used to determine appropriate workflow for pre-payment or post-payment review
  - Can be included in provider education efforts
- Data visualization to support a variety of reviews



# Optum Data Visualization



# Optum Reporting Component

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- Measures savings and return on investment (ROI)
  - Claims stopped pre-payment
  - Changes in provider billing behavior
  - Post-payment savings opportunities from pre-payment results
- Analyzes individual pre-payment processes
  - Accuracy of detection components
  - Efficiency of review workflows
- Identifies areas of opportunity to expand and refine efforts
  - New claim types or workflow
  - Areas to focus reviewer training

# Optum Reporting Component

The screenshot displays the Optum Reporting Component interface. At the top, there is a navigation bar with the Optum logo and the text "OPTUM™". Below the navigation bar, there are several tabs: Dashboard, Reports (selected), Cases, Reviewer Cases, User Availability, Case Management, Create Case, and Error Management. The main content area shows a report titled "SLA Turnaround Time" with a sub-header "(Receipt Dates From: 03/02/2013 To: 07/02/2013)". The report includes a table with columns for CLIENT REC CNT, BATCH COUNT, FIRST PASS PEND CNT, FIRST PASS DENY CNT, and FINAL\_PASS\_DENY\_CNT. The values for these columns are 71,990,143, 3, 600, 5,227, and 5,529 respectively. There is also a table with columns for SOURCE, BATCH COUNT, CLAIM COUNT, PROV COUNT, TOT ALWBI CHRG, and AVG ALWBI CHRG. The values for these columns are ANALYCS ENGINE (3, 5,703, 791, \$5,113,043.16, \$997.5), CASE MANAGEMENT (3, 3,264, 605, \$982,510.29, \$301.0), and Totals (8,967, 1,456, \$6,095,553.45).

Report Type: SLA Turnaround Time Show Report

ISM Cognos Viewer - 05 - SLA Turnaround Time Log Out

**OPTUM™**

**SLA Turnaround Time**  
(Receipt Dates From: 03/02/2013 To: 07/02/2013)

Claim receipt date span (optional):  
 From:   Earliest date  
 To:   Latest date

CLIENT REC CNT	BATCH COUNT	FIRST PASS PEND CNT	FIRST PASS DENY CNT	FINAL_PASS_DENY_CNT
71,990,143	3	600	5,227	5,529

SOURCE	BATCH COUNT	CLAIM COUNT	PROV COUNT	TOT ALWBI CHRG	AVG ALWBI CHRG
ANALYCS ENGINE	3	5,703	791	\$5,113,043.16	\$997.5
CASE MANAGEMENT	3	3,264	605	\$982,510.29	\$301.0
<b>Totals</b>		<b>8,967</b>	<b>1,456</b>	<b>\$6,095,553.45</b>	





**Case studies: real returns with pre-pay predictive analytics**

## Client successes with pre-payment detection alone

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- Improper billing of facet joint injections — prevented more than \$100,000 in payments for those services alone from a provider later indicted for health care fraud
- Detection of similar billing patterns across linked providers — similar billing behaviors led to connecting a clinic through link analysis to a provider under OIG sanction
- Improper selection of principal diagnosis for inpatient hospital stays — individual claims identified and found to be in error
- ER group billing observations stays as same-day inpatient admission and discharge

*Pre-payment detection can be applied across all claim types to improve the return on all program integrity efforts*



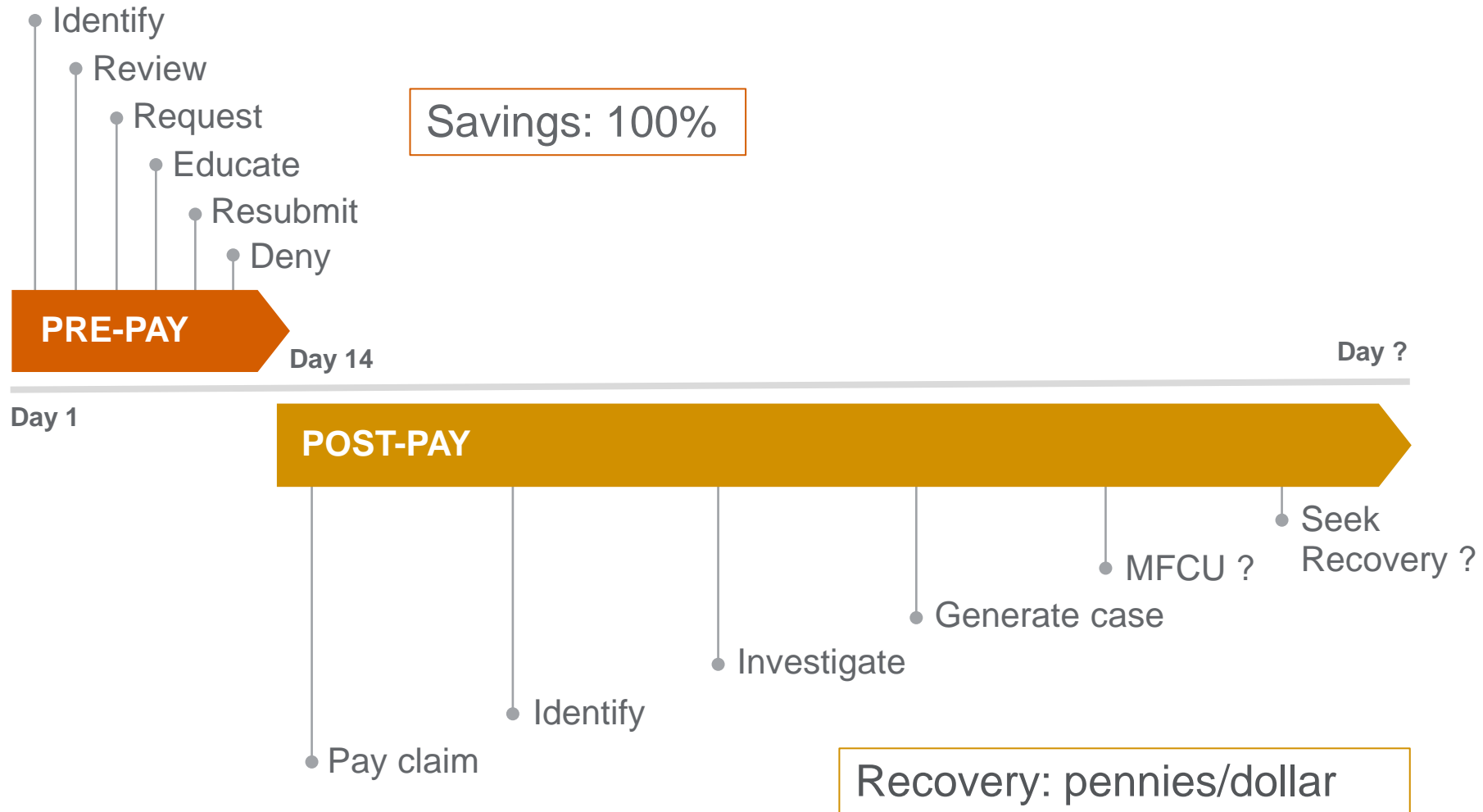
**How pre-pay predictive analytics transforms the cycle of program integrity:** The enterprise-wide implications of the implementation of predictive analytics

# States benefit most by deploying both pre- and post-payment detection processes

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- The Optum Pre-payment Review Solution continuously improves program integrity at every point in the payment cycle
- Feedback loops are critical after pre-payment results are generated to improve scoring/detection accuracy
- Continuous feedback for smarter MMIS payment integrity and retrospective program integrity investigations
- When claims are denied, we notify the agency about:
  - Providers needing retro reviews
  - Need for corrective action to MMIS front-end edits
  - Where the agency might add, strengthen or modify policy payment rules

# Pre-pay versus post-pay: timeline of recovery





# Return on investment is multi-faceted

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## Busting the myths — pre-payment worries

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***“Pre-payment will identify too many correct claims and we won’t comply with CMS prompt-pay guidelines.”***

**Fact:** Pre-payment analytics scores the most at-risk claims and states can set thresholds.

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***“There will be a high number of false-positives and that will aggravate my providers.”***

**Fact:** Claims identified will first be screened initially. If the issue appears to be okay, the claim will pay in the current/same pay cycle. If a claim is suspect, then additional information for the claim will be requested. Decisions will be made promptly upon receipt of further information.

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***“I already have enough work to do with the high-dollar cases; I don’t have the staff or the time to focus on hundreds of single claim reviews every week.”***

**Fact:** Optum can perform claim review and use our case tracking system to keep the state aware of the results. Optum can generate all letters for medical review quickly and resolve the case quickly.

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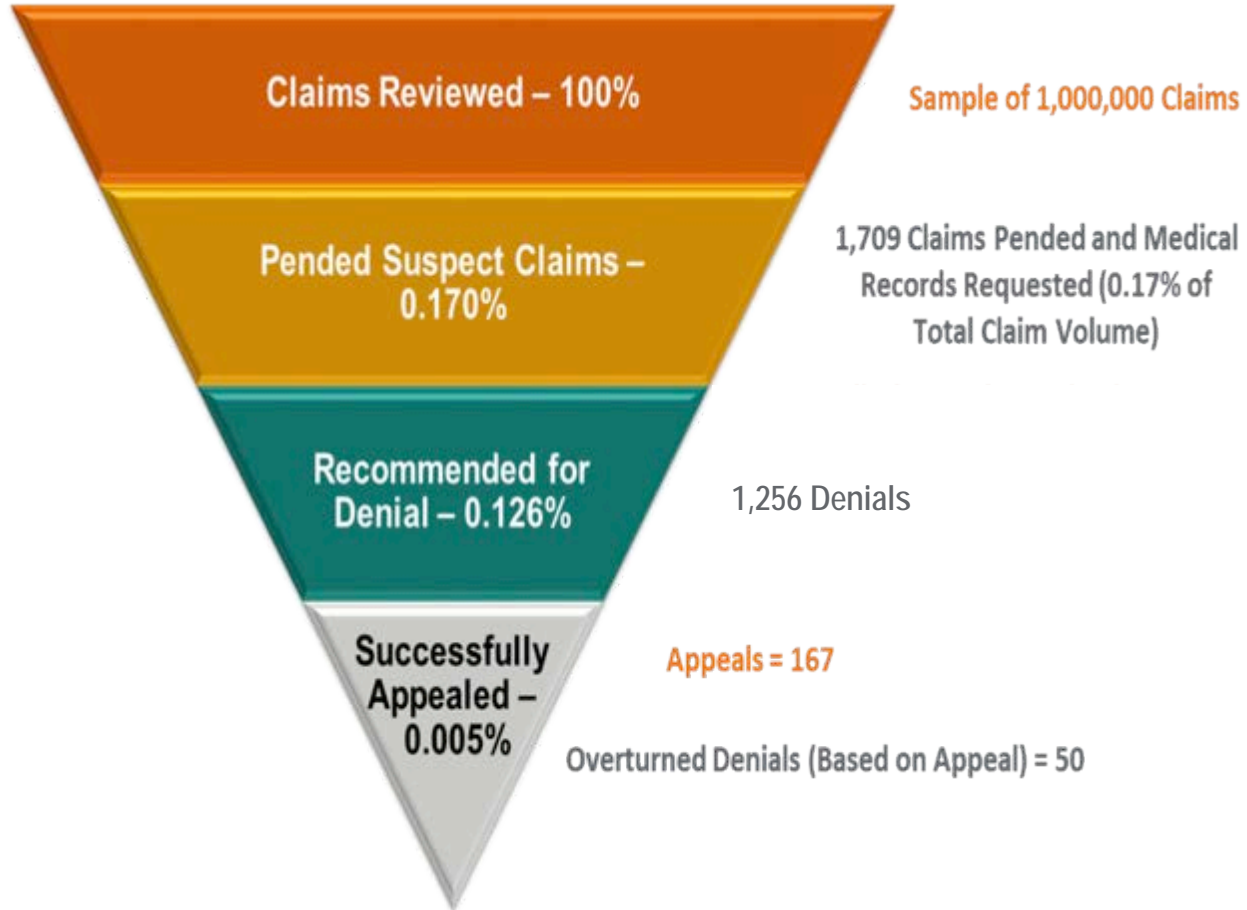
***“Is this really worth it? What is it going to save me?”***

**Fact:** Pre-payment review means every claim is analyzed by sophisticated analytics before it pays. Provider and recipient fraud, abuse, error and waste will be detected and stopped sooner. The need for large retrospective recovery cases will decrease over time. The integrity of Medicaid program payments will have one more valuable tool to improve accuracy.

# How many claims could be subject to review?

**Answer:** Relatively few, with the actual percentage depending on your approach to preventing improper payments

- One example:



# What an effective pre-payment model will do for you

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- ✓ Pre-payment systems can make PI recoveries more productive
  - ✓ Stop improper claim payments
  - ✓ Retrospective effort should decrease over time
  - ✓ Identify and stop improper billing practices sooner
  - ✓ Result in more referrals to PI to investigate a suspicious provider's past billings
- ✓ Reduces provider abrasion
  - ✓ Educate providers to change the improper billing behavior
  - ✓ Providers will have been alerted to their mistakes
- ✓ Internal feedback loops maximize efficiency:
  - ✓ Accuracy of predictive analytics continuously improve
  - ✓ PI is notified of the need to generate retro reviews based on pre-payment denials
  - ✓ Improvements recommended to MMIS
  - ✓ Strengthen Medicaid policy and payment rules



For more information, visit [www.optum.com](http://www.optum.com).

Thank you for attending.

**Mike Miller, Sr. Client Executive**

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