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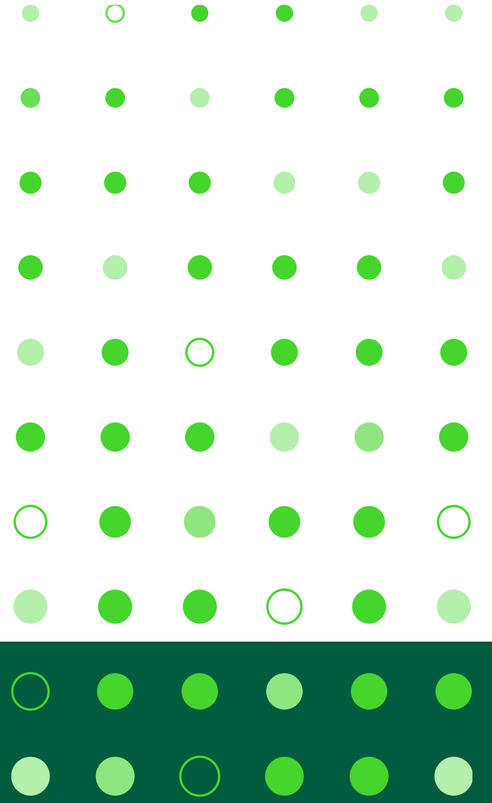
AI: Reconciling Its Reputation With the Facts



advanced insights. better healthcare.

Overview

A NEW WORLD OF DATA SCIENCE IS OUR FUTURE … AND *SOME* OF THIS FUTURE HAS ALREADY ARRIVED. LET'S ASSESS:

Artificial Intelligence (AI) is maturing rapidly

AI tools are becoming more accessible and cheaper

***Everybody* is thinking about how to take advantage of new capabilities**

30% of Digital transformation initiatives result in a negative ROI

Learning Objectives

DURING THIS SEMINAR, ATTENDEES WILL LEARN TO:

1. Analyze the current state of the industry.
2. Evaluate AI and other tools through various use cases.
3. Assess selection, implementation, and program governance considerations.

About Today's Speakers

About Advata

Advata is an advanced analytics software company with a suite of SaaS products that drive better healthcare. Advata fuses data science research with responsible artificial intelligence (AI), machine learning (ML), and robotic process automation (RPA) to improve patient outcomes, enhance efficiencies, optimize revenue, and decrease costs.

Advata serves both clinical and back-office management to optimize operations using advanced analytics. Advata solutions help healthcare organizations improve revenue cycle management (RCM) and streamline workflows.

The name "Advata" is indicative of our value proposition – advanced data analytics for healthcare.

Keith A. Shanks
Vice President, Sales
Advata

Keith Shanks is the Vice President at Advata. With over 19 years of experience, he is well-versed in healthcare revenue cycle management workflow with a specific focus on technology, services, and analytics.

Prior to Advata, Keith has steered the go-to-market growths for strategic planning and market oversight for three healthcare organizations, in addition to two startup companies.

Keith holds a B.S. from the University of Idaho. The foundation of his career success began in 1988 when he enlisted in the U.S. Navy. Keith honorably served for 15 years and earned his commission as a Naval Officer at the halfway mark of his tenure.

Kristin Steen
Senior Product Manager
Advata

Kristin Steen is a Senior Product Manager of Revenue Cycle Management applications at Advata. Her primary focus is on building denial analytics and root cause analysis solutions that proactively inform healthcare back-office teams on denial and underpayment trends and issues.

Prior to Advata, Kristin launched a mobile application for a digital-first health service provider, combining artificial intelligence with virtual clinical operations. Her experience includes setting strategic direction through product roadmaps for data-focused SaaS start-ups.

Kristin holds a Bachelor of Business Administration degree in Finance from Texas A&M University and a Master of Business Administration degree from the University of Washington.

Poll #1: What is your organization's experience with AI?

1

We are using AI now.

2

We don't buy the hype, so we're not considering anything beyond our core systems.

3

We are in the process of assessing our options with AI.

4

We want to build our own!

5

We used an AI vendor, but the AI didn't do what they said it would and/or the return on investment was negative.

6

We think that our EHR offers enough AI that we're fine.

Definitions

- **Artificial Intelligence (AI):** the capability for machines, using statistical techniques, to independently make decisions based on perceived environment
- **Predictive Modeling:** the use of statistical techniques to predict future outcomes based on historical data
- **Machine Learning (ML):** the ability for a software to learn and improve without being explicitly programmed
- **Robotic Process Automation (RPA):** using software to interact with information systems and perform tasks without human intervention
- **Business Intelligence (BI):** application software that collect and process large amounts of data from internal and external systems, and identifies patterns and trends

Common Use Cases

Predictive Analytics

- Propensity to pay
- Price Transparency
- Readmissions

Artificial Intelligence / Machine Learning

- Transcription Services
- Computer Assisted Coding

Robotic Process Automation

- Claim Status Checking
- Eligibility Checks

- **The underlying data is often unreliable, not standardized, or not specific**
- **Modern workflows aren't integrated into legacy processes**

- **Development tools and processes get cheaper**
- **Point solutions are broadly available and generally accepted tools**

Common Use Cases - Emerging

Predictive Analytics

- Predicted denials
- Propensity to recover

Artificial Intelligence / Machine Learning

- Computer ***Automated*** Coding
- Reserve model audit
- Process mining/task mining

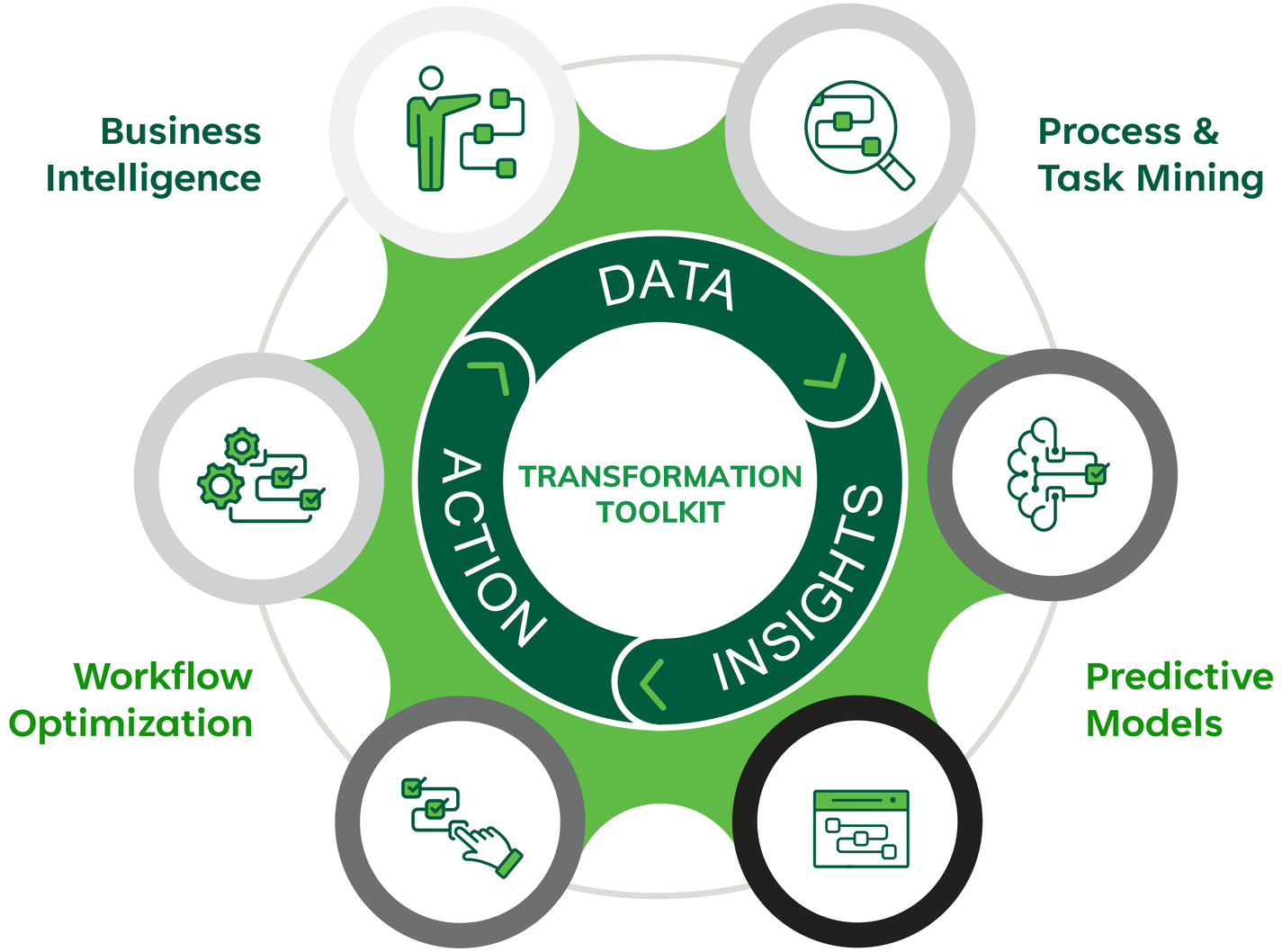
Robotic Process Automation

- Host system workflows
- Appeals process
- “Attended” automations

- **Most products are unproven**
- **Most are not fully integrated workflows**

Transformation Toolkit

An Intelligent Business Process Management Suite (iBPMS) integrates the use of these emerging techniques, enabling a more comprehensive approach to digital transformation



Poll #2: Where is your biggest pain point that AI would benefit?

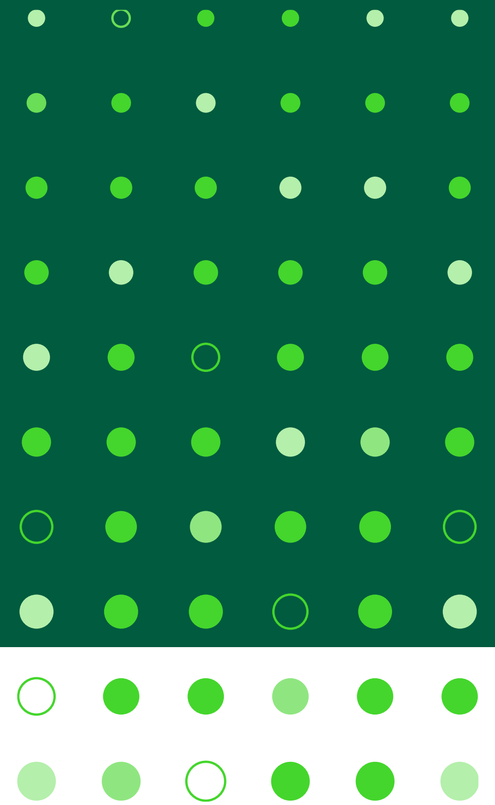
1. Front-end
2. Middle
3. Back-end
4. Anywhere
5. Everywhere

Case Study

While administrative and finance functions have rote, unchallenging tasks across the revenue cycle, focusing first on the back-end maximizes ROI. Not only are the applications for the sort of technology discussed more mature in this space, the generation of otherwise uncollected revenue — with the reduction of costs a secondary though beneficial result — means a degree of growth in today's tight margins.

To illustrate what we have discussed so far, what follows is an examination of a common problem, solution built from the box of tools, and a glimpse of the outcomes.

Let's look at the use case of ***Low Balance Accounts Receivable (AR).***



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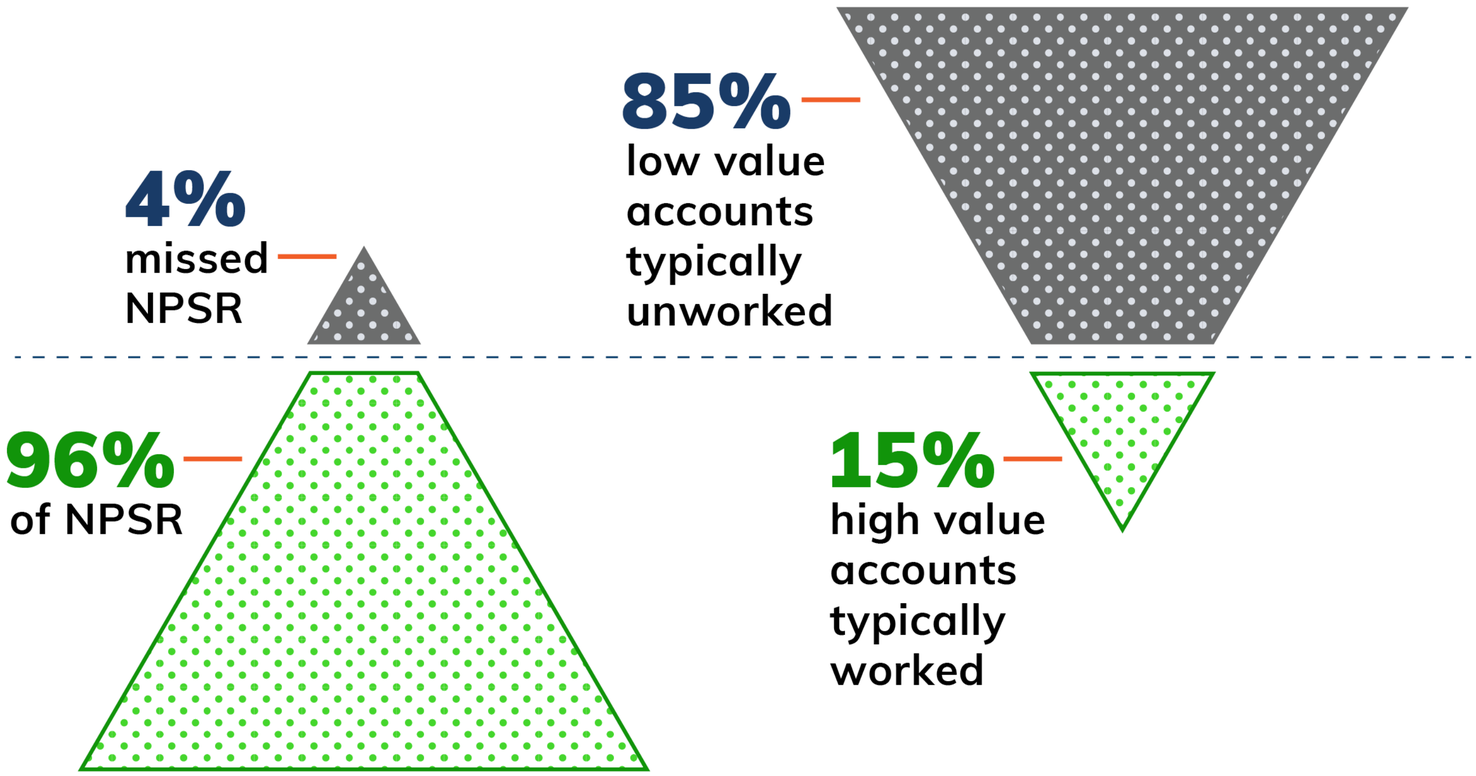
Problem:

YOU AREN'T WORKING MOST OF YOUR AR

Low $ accounts
Typically unworked

High $ accounts
Typically worked



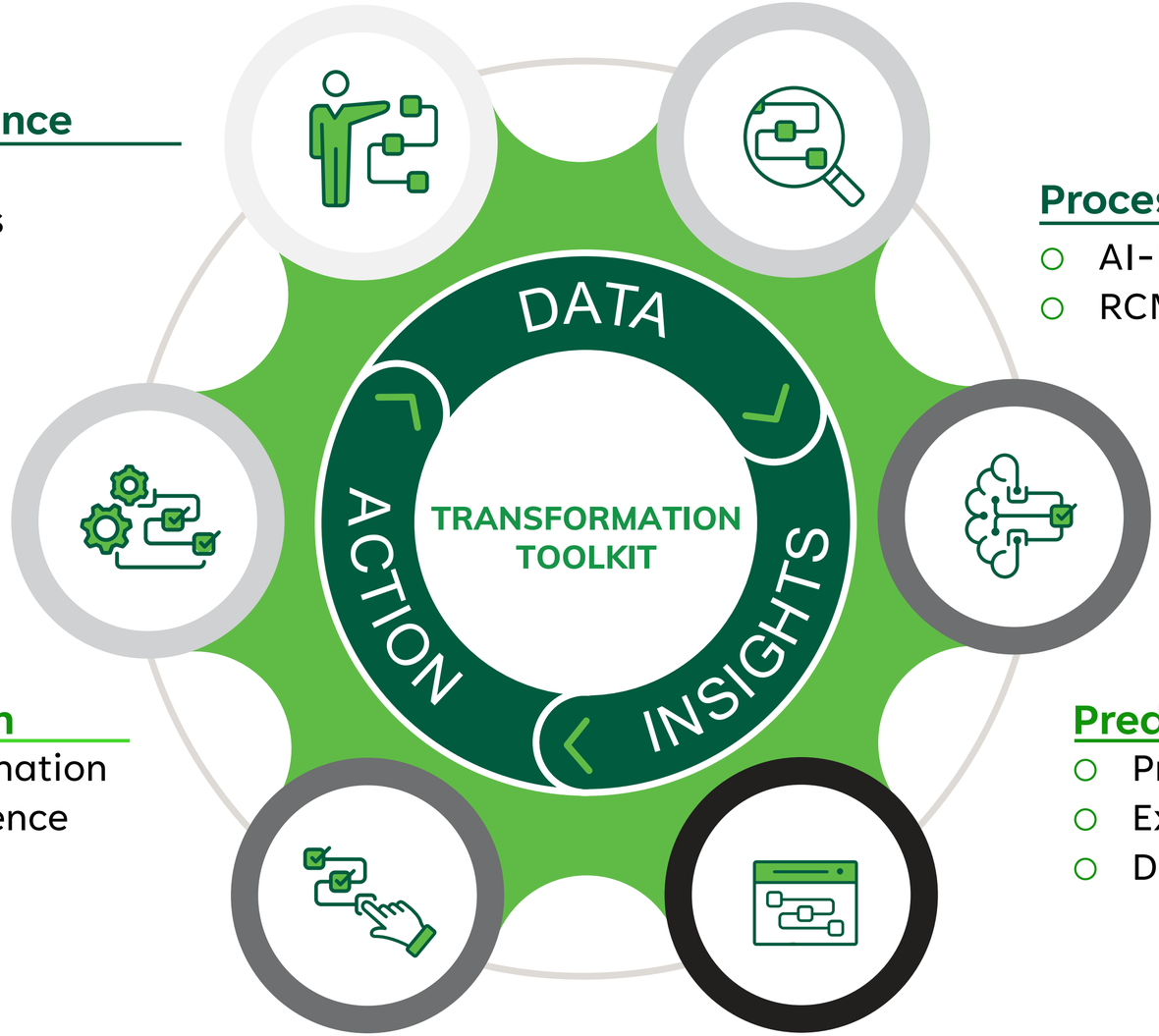
Transformation Toolkit

Business Intelligence

- Denials Analysis
- Payer Anomalies

Process & Task Mining

- AI-Powered Process Mapping
- RCM Process KPIs



Workflow Optimization

- Robotic process automation
- Like accounts in sequence
- Due for work timing

Predictive Models

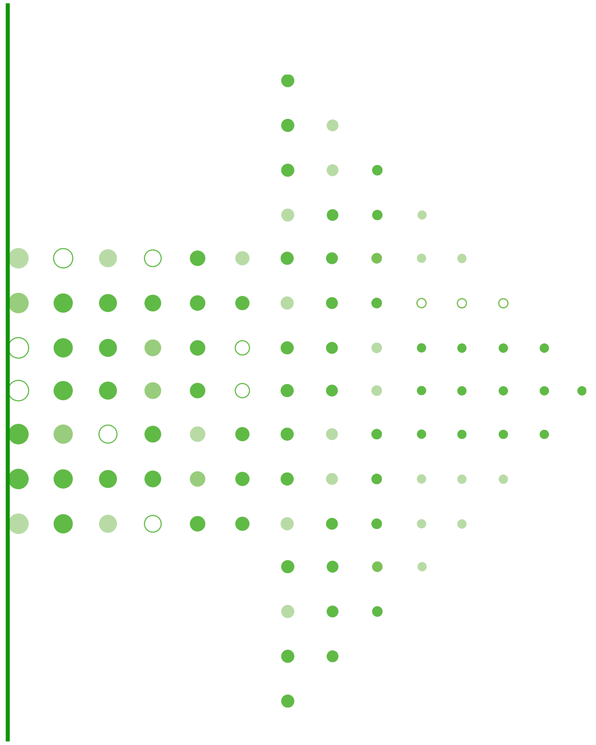
- Propensity to recover
- Expected labor cost
- Deadwood/negative ROI accounts

Case Study: Low Balance Accounts Receivables

1

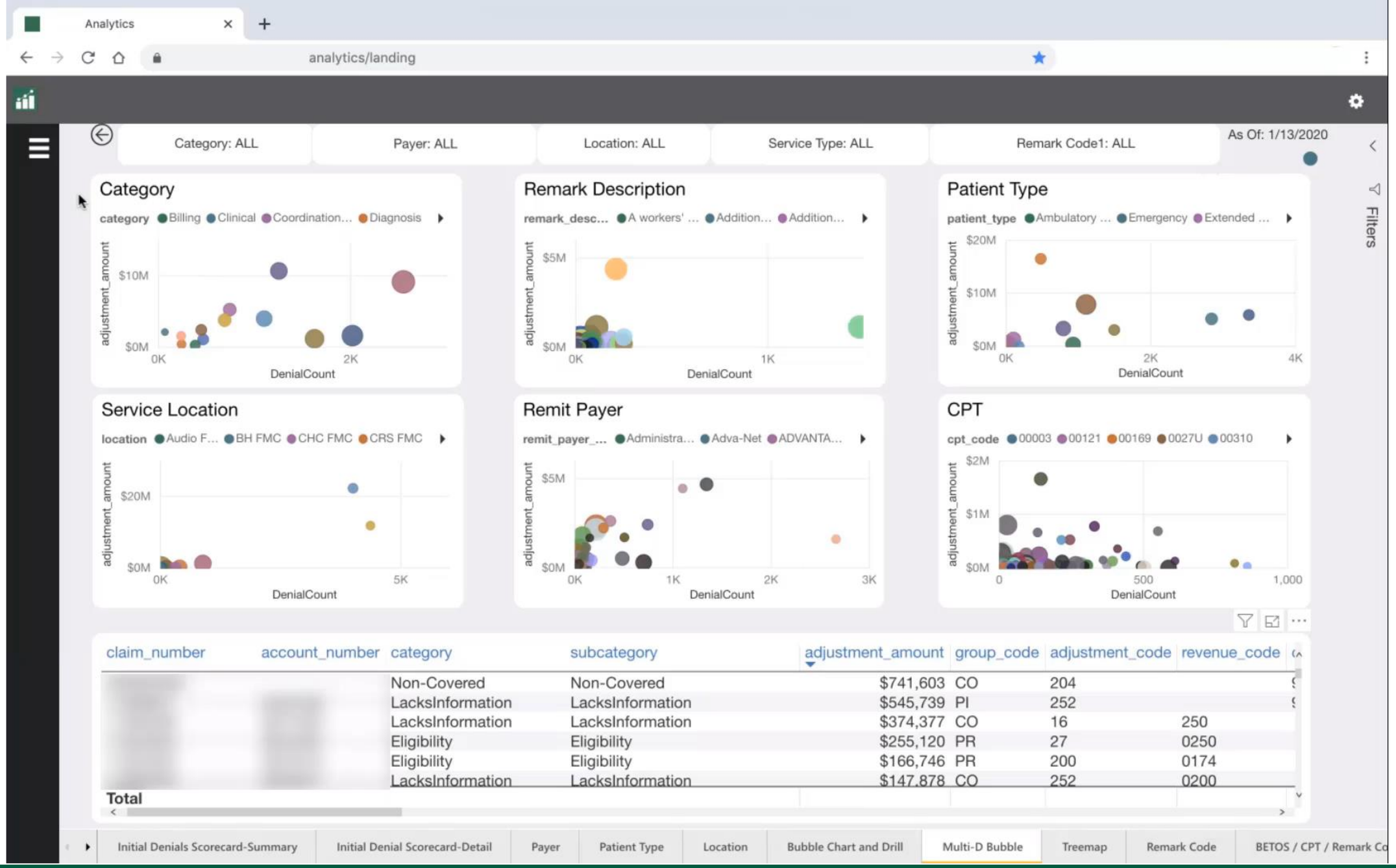
Business Intelligence Reports:

- Denials Clusters
- Payer anomalies
- “False denials”
- Low propensity to recover



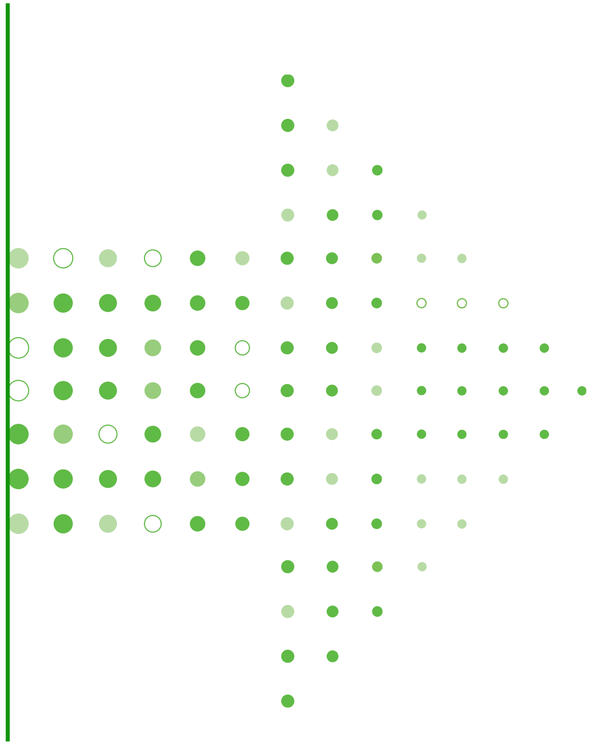
Discovered Opportunities:

- “False Denials” from managed Medicaid payers
- “Net Down” transactions holding up Co-Pays
- Denial Prevention opportunities up stream in RCM
- “Mass Appeal” opportunities


Analytics
analytics/landing
Category: ALL
Payer: ALL
Location: ALL
Service Type: ALL
Remark Code1: ALL
As Of: 1/13/2020
Filters
Category
category Billing Clinical Coordination... Diagnosis
adjustment_amount
$10M
$0M
0K
2K
DenialCount
Remark Description
remark_desc... A workers' ... Addition... Addition...
$5M
$0M
0K
1K
DenialCount
Patient Type
patient_type Ambulatory ... Emergency Extended ...
$20M
$10M
$0M
0K
2K
4K
DenialCount
Service Location
location Audio F... BH FMC CHC FMC CRS FMC
$20M
$0M
0K
5K
DenialCount
Remit Payer
remit_payer_... Administra... Adva-Net ADVANTA...
$5M
$0M
0K
1K
2K
3K
DenialCount
CPT
cpt_code 00003 00121 00169 0027U 00310
$2M
$1M
$0M
0
500
1,000
DenialCount
claim_number
account_number
category
subcategory
adjustment_amount
group_code
adjustment_code
revenue_code
Non-Covered Non-Covered $741,603 CO 204
LacksInformation LacksInformation $545,739 PI 252
LacksInformation LacksInformation $374,377 CO 16 250
Eligibility Eligibility $255,120 PR 27 0250
Eligibility Eligibility $166,746 PR 200 0174
LacksInformation LacksInformation $147,878 CO 252 0200
Total
Initial Denials Scorecard-Summary
Initial Denial Scorecard-Detail
Payer
Patient Type
Location
Bubble Chart and Drill
Multi-D Bubble
Treemap
Remark Code
BETOS / CPT / Remark Co

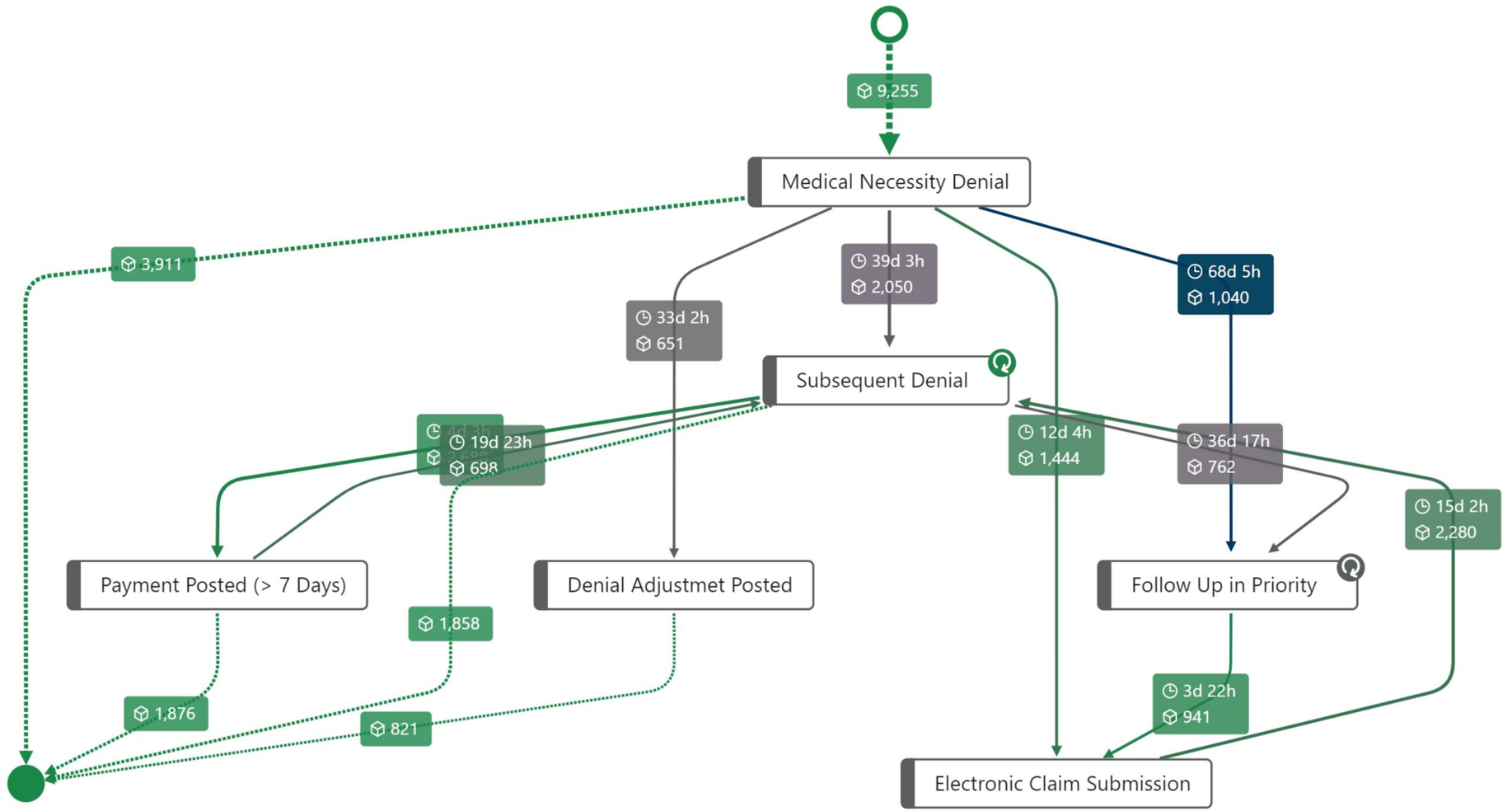
Case Study: Low Balance Accounts Receivables

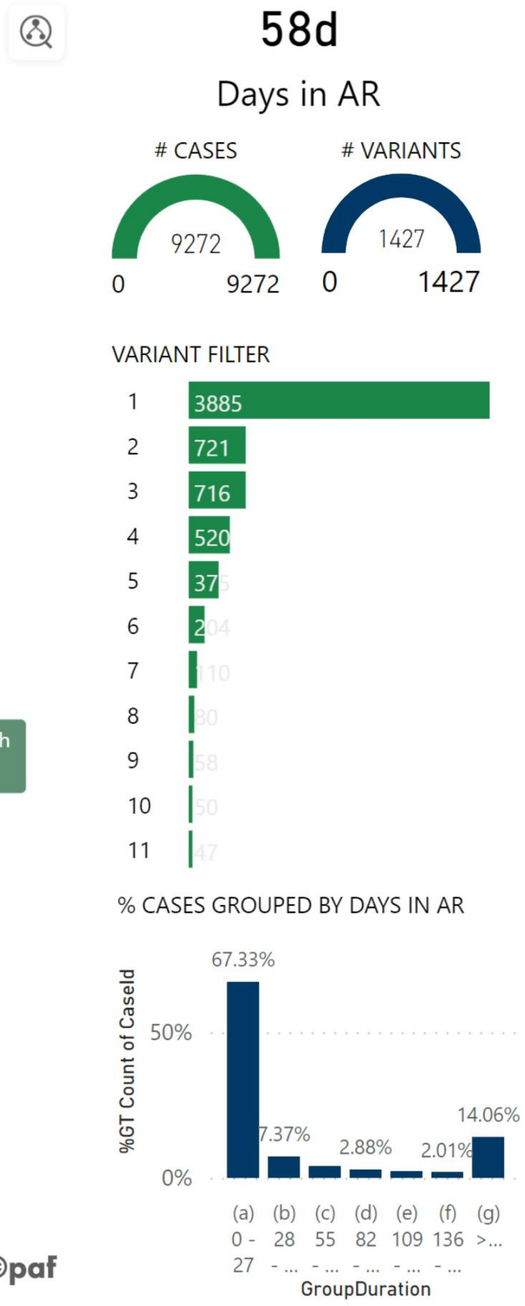
1. **Business Intelligence Reports**
2. **Process Mining / Task Mining:**
   - Process visualization *as it really happens*
   - Process bottlenecks
   - Redundant loops / unnecessary steps
   - Variant analysis
   - Correlations to positive / negative outcomes
   - Conformance checking



Discovered Opportunities:

- Performance baseline
- Variance among follow up agents
- Bottlenecks in hand offs between departments
- Auto-adjustment thresholds / categories
- Catalog of “job aides”
- Structure for business rules


9,255
Medical Necessity Denial
3,911
39d 3h
2,050
33d 2h
651
68d 5h
1,040
Subsequent Denial
19d 23h
698
12d 4h
1,444
36d 17h
762
15d 2h
2,280
Payment Posted (> 7 Days)
Denial Adjustmet Posted
Follow Up in Priority
1,858
1,876
821
3d 22h
941
Electronic Claim Submission

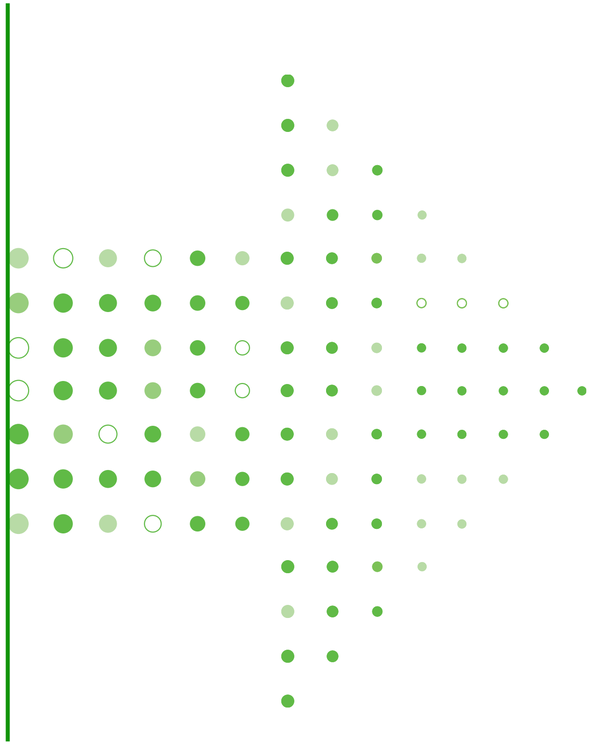

58d
Days in AR
CASES
9272
0
9272
VARIANTS
1427
0
1427
VARIANT FILTER
1
3885
2
721
3
716
4
520
5
37
6
7
8
9
10
11
% CASES GROUPED BY DAYS IN AR
67.33%
50%
0%
%GT Count of CaseId
7.37%
2.88%
2.01%
14.06%
(a) 0 - 27
(b) 28 - ...
(c) 55 - ...
(d) 82 - ...
(e) 109 - ...
(f) 136 - ...
(g) >...
GroupDuration

Search

©paf

Case Study: Low Balance Accounts Receivables

1. **Business Intelligence Reports**
2. **Process Mining / Task Mining**
3. **Predictive Models:**
   - Expected labor cost
   - Propensity to recovery
   - Deadwood accounts

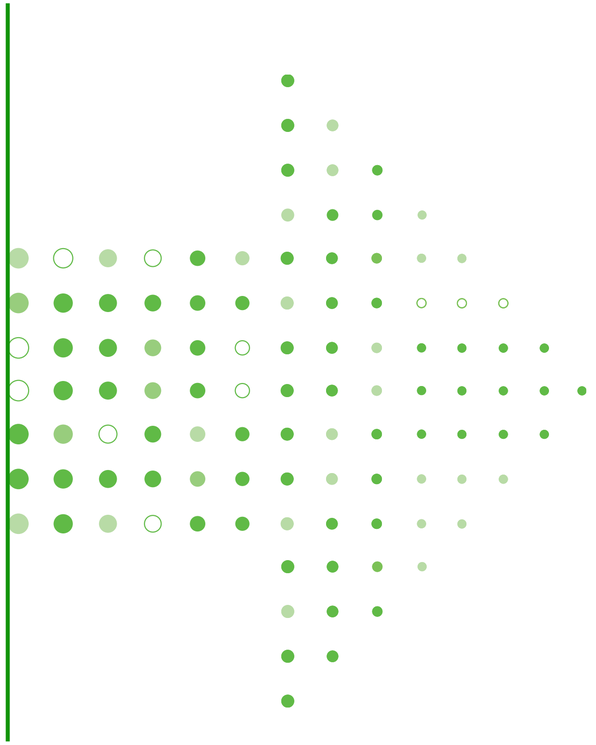


Discovered Opportunities:

- Negative ROI accounts
- Past all filing / appeal limits accounts

Case Study: Low Balance Accounts Receivables

1. **Business Intelligence Reports**
2. **Process Mining / Task Mining**
3. **Predictive Models**
4. **Workflow Optimizations:**
   - Robotic Process Automation (RPA)
   - Sort like accounts in sequence
   - Due for work algorithm

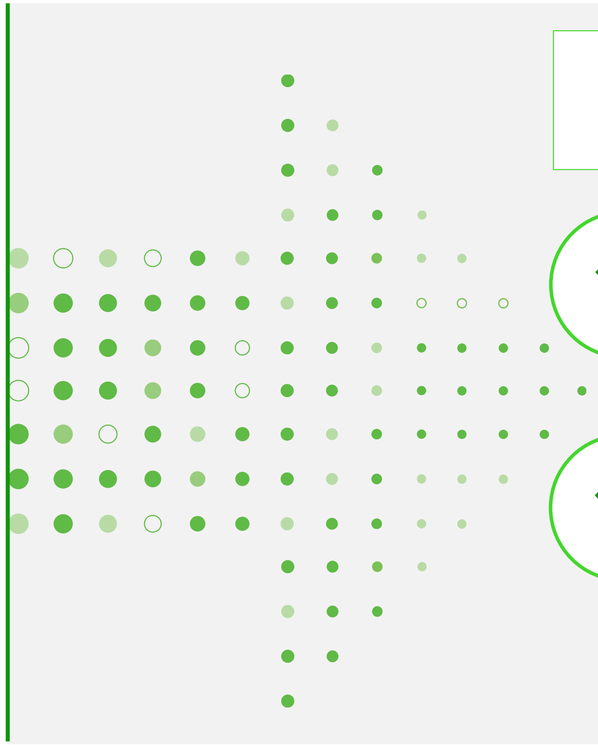


Discovered Opportunities:

- RPA: auto contractual adjustments
- RPA: negative ROI accounts
- RPA: business rules
- RPA: appeals form fill
- RPA: claim status COB denials
- Delay charge correction / crossover accounts

Case Study: Low Balance Accounts Receivables

1. Business Intelligence Reports
2. Process Mining / Task Mining
3. Predictive Models
4. Workflow Optimizations:



Increased cash collections on low balance AR by 100%

50%
Automation of follow up activity

10%
Reduction in initial denials

30%
Reduction in vendor placement

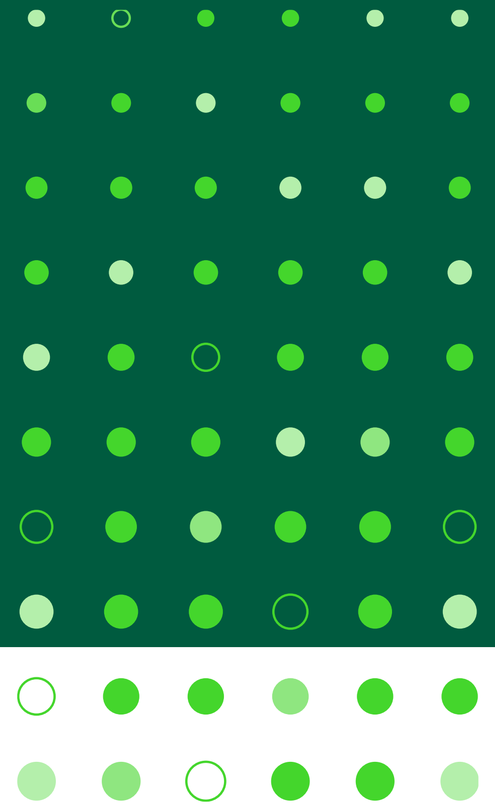
10%
Reduction in follow up staff

Conclusion

In order to create solutions to today's challenges in the healthcare revenue cycle, a toolbox of technology will build the best answer.

We have reviewed some of the assets that will aid in a response to the problems our industry is facing such as strains on revenue and staffing.
I think anyone who takes a closer look will see the synergy between tools.

From better analytics enabling the highest use of automation to RPA creating more effective RCM programs: cash improvements, increased productivity, supports efficient staff, etc., there are opportunities to see enhanced results from your RCM.



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Conclusion

Thank you to our attendees! We welcome any questions, comments, or feedback regarding this presentation. If you would like to reach out to the presenter directly, please use the contact information shown here.

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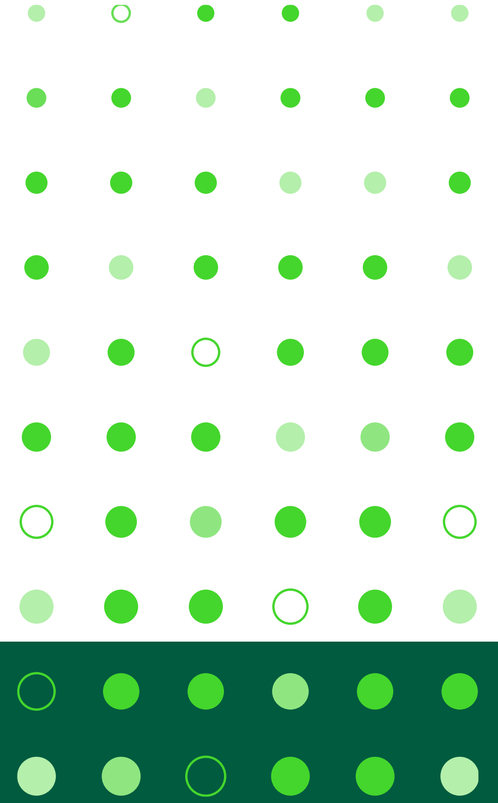
Thank You



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