



TachyHealth

The intelligent
value-driven health
platform

Offices: California – Riyadh – Dubai





TachyHealth

TachyHealth traction in Numbers



+

185 M

Medical activities
trained on our systems

+

\$ 1.3B

Worth of claims passed
through our systems

%

10-30

increase in detectability
of abnormal claims

+

3,850

Referenced medical
guidelines on our systems

+

150M

Explainable AI edits with
rules

+

19

Deep learning networks
within our systems



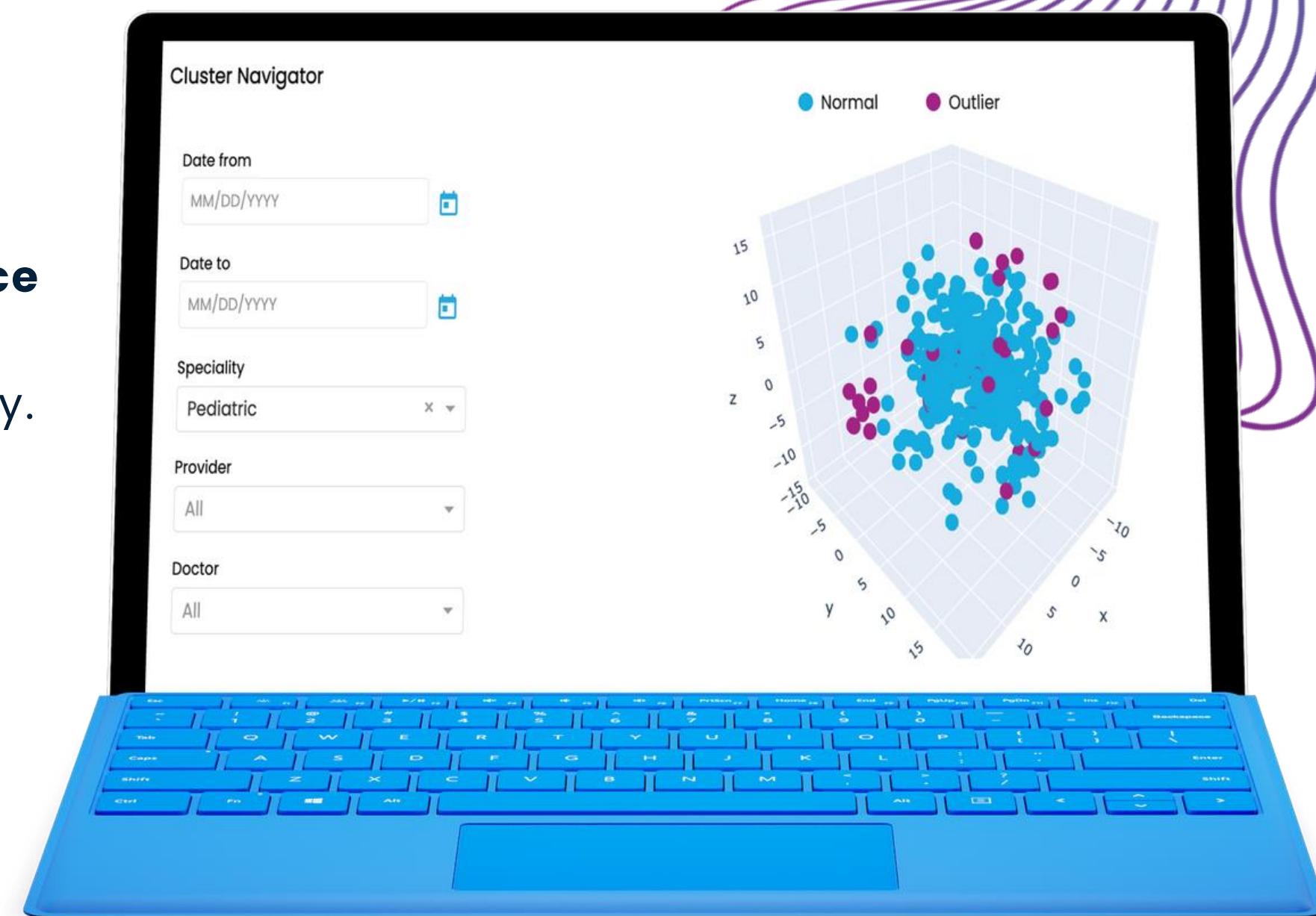
TachyHealth

Taming the medical claims data beast: AI solutions for improved outcomes



AiReview umbrella **harnesses** the power of Artificial Intelligence for **medical claims, authorizations, and business analytics** enabling large-scale audits & reviews with enhanced efficiency.

This promotes **real-time, data-driven decision-making**, ultimately **increasing team productivity, optimizing performance**, and offering a **gamified user experience**.



Our sophisticated features for optimal performance at the payer's side



AI Audit Management Tool

The next generation of the automation of the claims and prior-approvals solution powered by AI for auditing the claims medically.



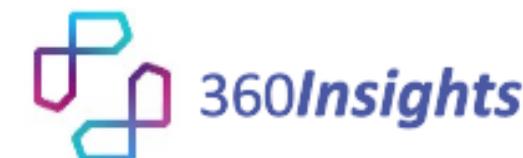
Clustering Fraud, Waste & Abuse (FWA)

ML models detect and intervene in FWA cases and cluster and identify the provider pattern.



Business Analytics & Intelligence

Real-time analytics to assist decision-making and track claims. related services, and report on KPIs



1.

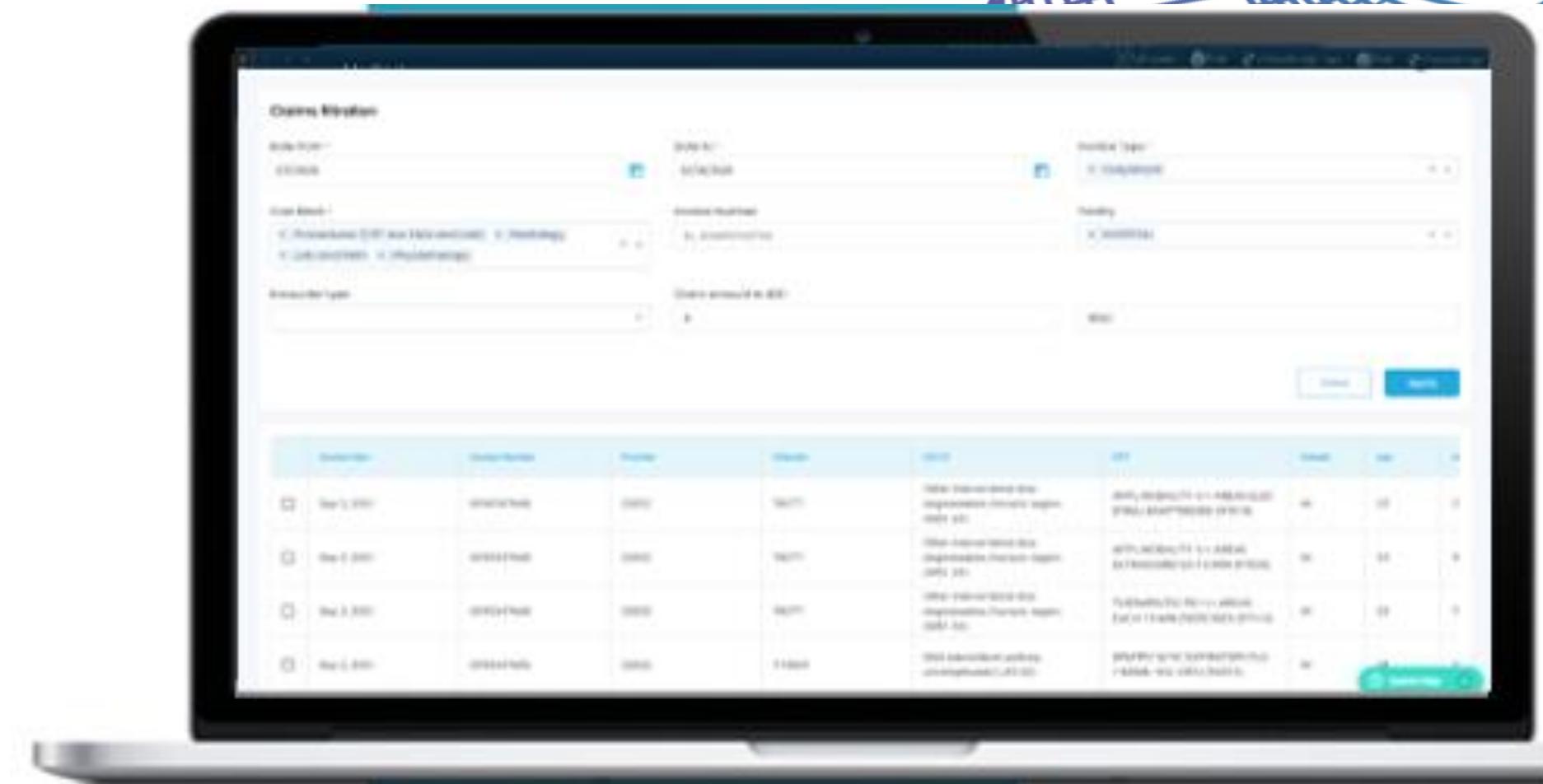
Medical AI Auditing of Claims



Ai Audit tool for claims optimization



- Introducing our **AI-driven medical claims platform**, seamlessly tailored Insurance companies.
- **Streamline** adjudication, audits, and reviews with automated processes, **accelerating decision-making and communication**.
- **Enhance productivity, increase revenue**, and **optimize** healthcare administration.



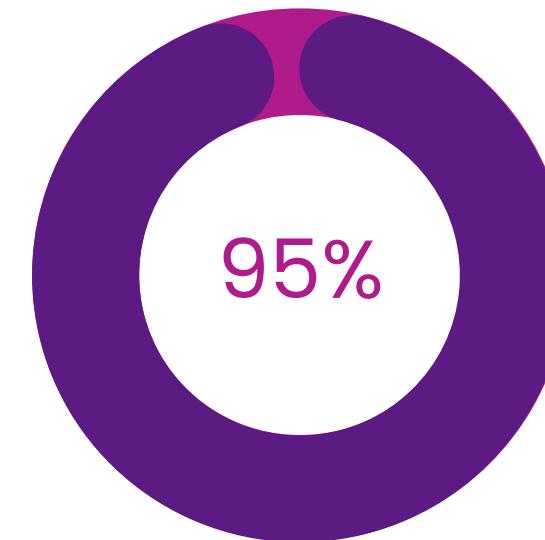
Unbeatable performance KPIs for your business

Delivering robust differentiating value for FWA Auditor



Performance

~10 minutes to **audit** 100k activity lines for the on-prem setup for the batch processing-based approach and 0.001 seconds for the API approach with the optimum recommended setup.



Accuracy

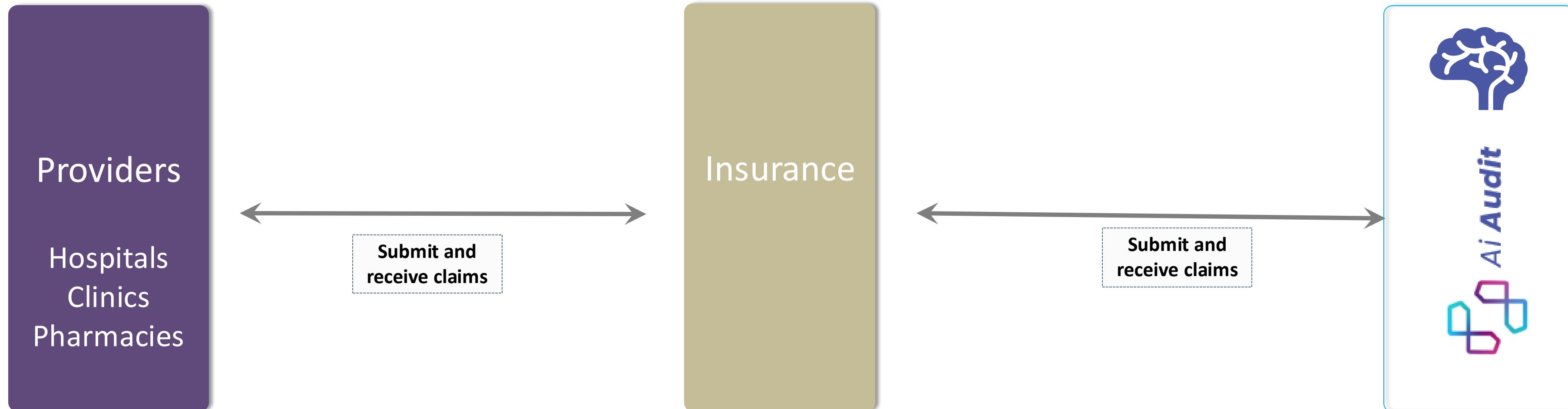
+95% decision accuracy for the medical audit. This is done with the ability to adjust audit decisions based on the **TPAs**' relationship and the previous pattern.



Coverage

100% of medical services are audited covering medications, Consumables, procedures, consultations, and other activities for both outpatient encounters

Medical Adjudication engine Within the FWA workflow for Insurance





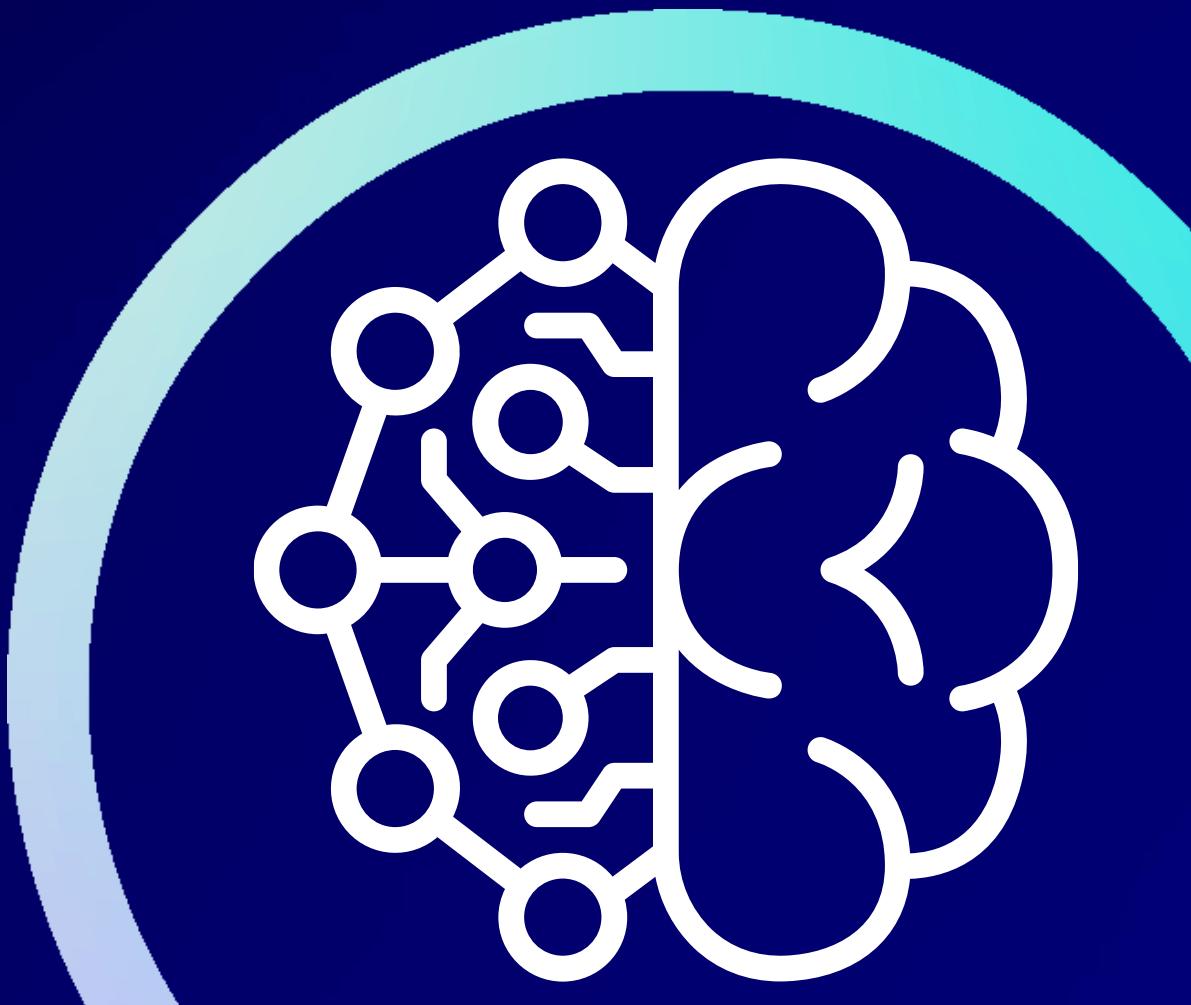
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Medical AI Adjudication engine key features



2.

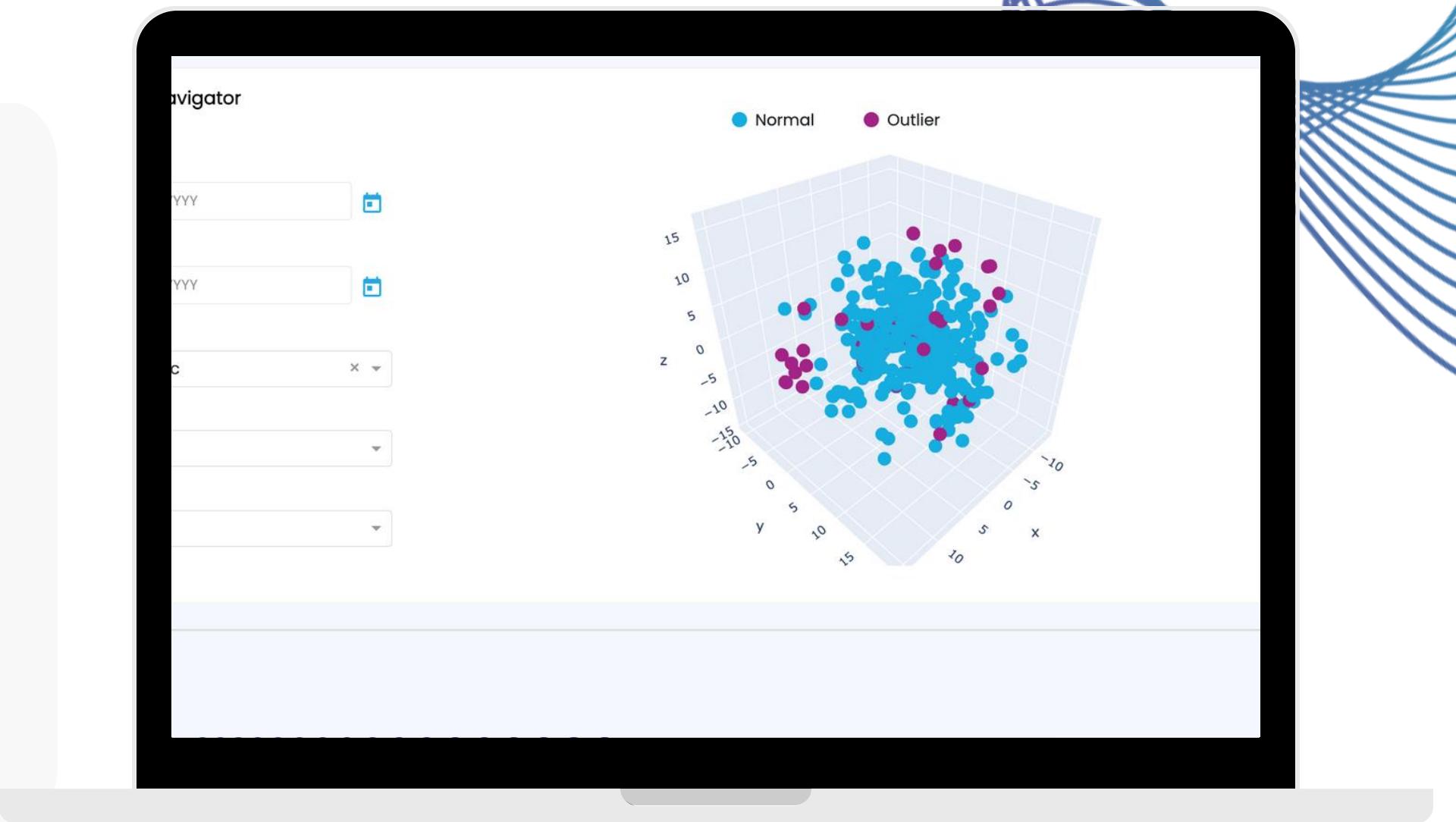
Hybrid FWA Detection Engine



FWA Intelligent Identification Tool



- With our brand-new **user interface**, you can **detect outliers and abnormalities** through an easy **visual representation**.
- **Insightful outliers reporting** and detections for the team.
- **3D visualization** based on data and **behavior detected through our AI and ML**.



Scaling FWA with a gamified experience using our hybrid model

FWA Auditor's team can detect outliers and **abnormalities** through an easy visual representation using AI in the loop to maximize audit efficiency. Our pipeline takes all approvals and claims data at intervals and provides reports for your team in real-time. This process enhances the QA processes and decreases the financial loss



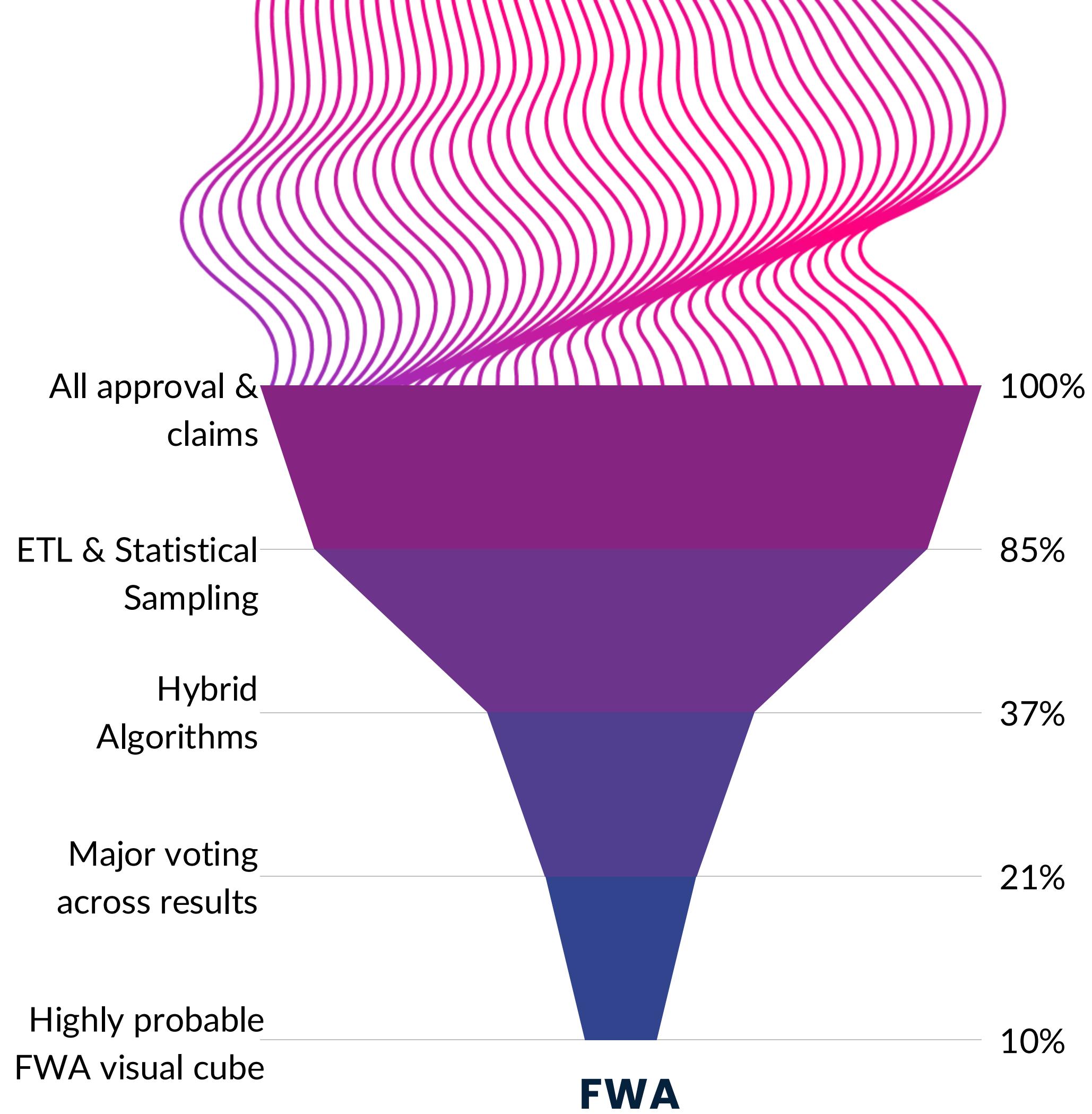
Provider FWA



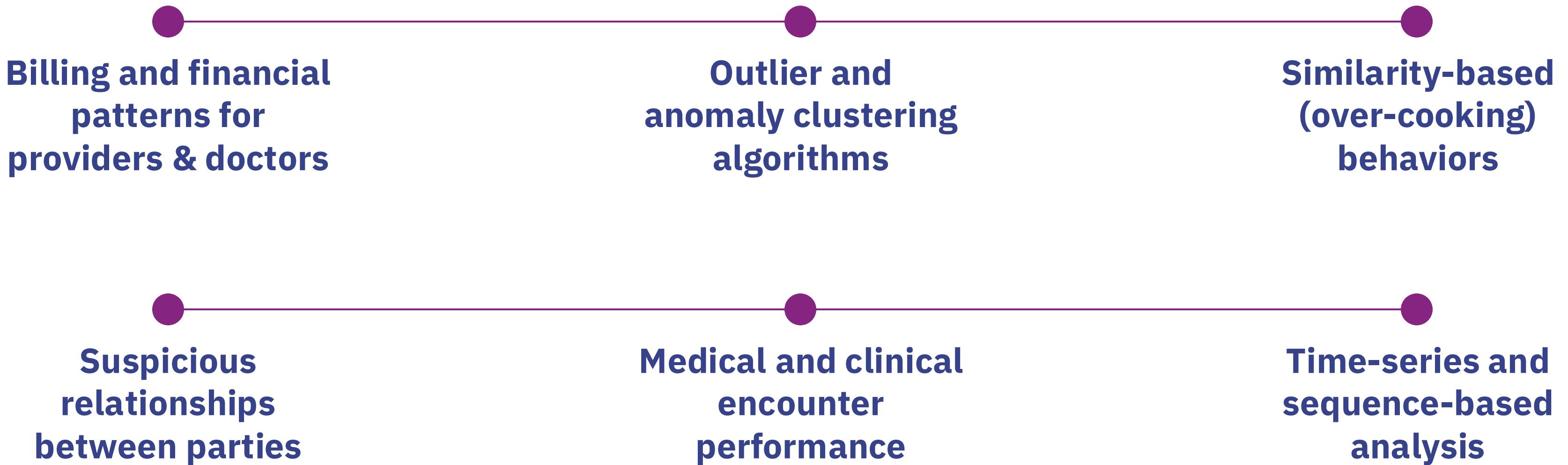
Clinician FWA



Members FWA



FWA key analytical indicators





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An example of suspected claims: Suspected outlier across a timeline

A timeline review of 6 years old girl with multiple outliers across her treatment journey
with provider #8120842738767120905

DateService	5/30/2022	6/1/2022	6/4/2022	6/15/2022 Discharge (6/15/2022)
PrimaryDiagnosis	J06.9 (Acute upper respiratory infection, unspecified)	J06 (Acute upper respiratory infections) M25.5 (Pain in joint)	J45 (Asthma)	J18.0 (Bronchopneumonia, unspecified organism) Inpatient
ProviderID	#8120842738767120905	#8120842738767120905	#8120842738767120905	#8120842738767120905
PractionerId	#3571647620429857279	#17325675752062864116 #13525432630595176075	#13525432630595176075	#13525432630595176075
ServiceDesc	<ul style="list-style-type: none"> NUROFEN(STRAWBERRY) 100 MG/5ML SUSP 150 ML LORINEX 2.5 MG / 5 ML SYR 150 FEVADOL 160 MG / 5 ML SYR VENTOLIN 0.5% NEB SOL 20 ML <ul style="list-style-type: none"> Unlisted Code Unlisted Code Consultant Consultation NORMAL SALINE 500 ML 	<ul style="list-style-type: none"> Influenza a+b ag Consultant Consultation Automated complete Blood cell <ul style="list-style-type: none"> CRP BRONCHICARE IVY 0.7 GM SYR <ul style="list-style-type: none"> Unlisted Code Consultant Consultation FEVADOL 160 MG / 5 ML SYR 	<ul style="list-style-type: none"> k + BUN ABG Creatinine Assay <ul style="list-style-type: none"> Magnesium Blood sodium Level Automated complete Blood cell <ul style="list-style-type: none"> Radiography of chest, 4 or more views Resp medication nebuliser DEXAMETHASONE AMP PULMICORT 0.5MG-ML (S. ATROVENT 250MCG-2ML UDV 	<ul style="list-style-type: none"> Emergency Ambulance Service for a patient on Non-Acute life support Room and Board ICU excluding consumables <ul style="list-style-type: none"> Cardiopulmonary resuscitation BOTTLE BREAST MILK 130/150ML NON-STERILE DISPOSABLE <ul style="list-style-type: none"> RSV Antigen Detection Test for Corona Virus Detection of Respiratory Virus Detection Test for Mycobacteria Radiography of chest, 4 or more Ultrasound of chest or abdominal wall
NetPayableAmount	309 SAR	955 SAR	1002 SAR	171,688 SAR

Dental Services

Pain in joint



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An example of suspected claims: Suspected outlier from a member

29 years old female member got diagnosed with Type 1 DM, obtained 12 boxes of Ozempic in very short of time 6 of them were in same day 12/19/2022 but with different claim number

DateService	1/4/2022	2/9/2022	12/19/2022	12/19/2022	12/19/2022	12/19/2022
ClaimNumber	#3337106063415788918	#11173510008485463766	#17723442230613066578	#177234422306130665782	#177234422306130665783	#177234422306130665784
ProviderID	#18101847150632649242	#18101847150632649242	#18101847150632649242	#18101847150632649242	#18101847150632649242	#18101847150632649242
MemberID	#10911513599076945559	#10911513599076945559	#10911513599076945559	#10911513599076945559	#10911513599076945559	#10911513599076945559
FullIcd10Desc	Other hypothyroidism E10:Type 1 diabetes mellitus	Other hypothyroidism E10:Type 1 diabetes mellitus	E10:Type 1 diabetes mellitus	E10:Type 1 diabetes mellitus	E10:Type 1 diabetes mellitus	E10:Type 1 diabetes mellitus
ServiceDescription	OZEMPIC 0.5MG INJ PFP 1S	OZEMPIC 0.5MG INJ PFP 1S	OZEMPIC 0.25 MG INJ PFP 1S	BD MICRO FINE PLUS (32G) 4MM	OZEMPIC 1.0MG INJ PFP 1S	OZEMPIC 1.0MG INJ PFP 1S
NetPayableAmount	578.51	1246.28	938.26	85.5	723.14	361.57
RequestedQuantity	2	4	3	1	2	1

3.

Business Analytics tool



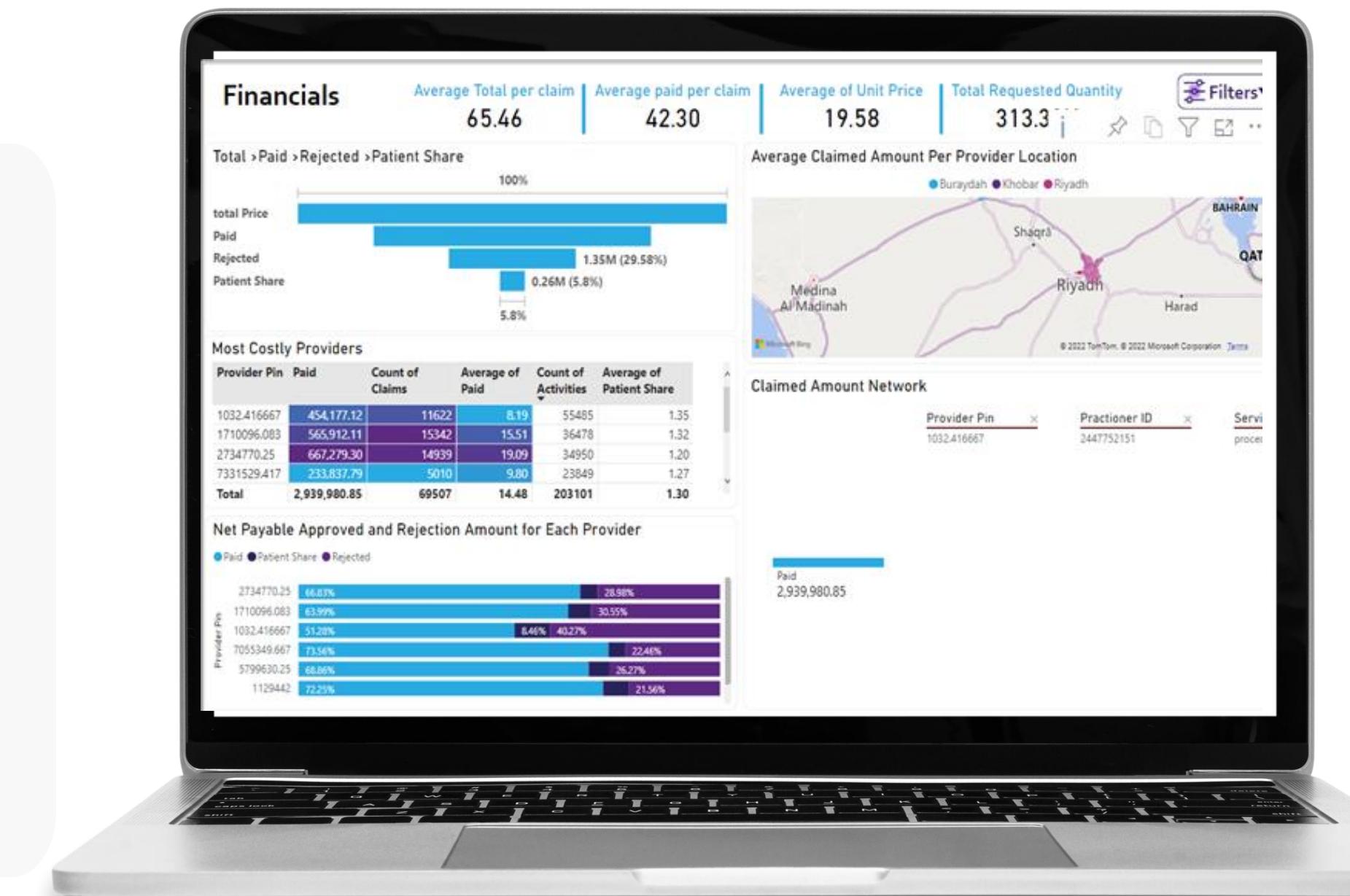


TachyHealth

Real-time business intelligence for claims



- **Tracks** all claims-related activities and interactions
- **Visualizes** KPIs and insights and leverages the real-time dashboard to identify patterns
- **Discover** trends, and predict behavior.
- This drives actionable decisions for the entire claims covering financial, medical, and utilization for TPAs, providers, clinicians, members, etc.



Additional features for a circular perspective: Business intelligence tool key analytical indicators



Financial analysis:

Provide a summary of the financial aspects of the claims across all providers in real-time



Medical analysis :

Provide an overview of the medical network's claims data and denials analysis



Utilization analysis:

Identify patterns, discover anomalies and trends, and predict the behavior of the patients



Scorecard for the TPAs:

Provide a ranking of the best and worst-performing TPA across the network using financial, clinical, and utilization metrics



Scorecard for the policies

Provide a ranking of the least-performing policies during the year and evaluate each to help the underwriting department to evaluate the policies' performance.



Performance Metrics

Provide the most important KPI including the most utilized services, claim processing time, and denial rate

Revolutionizing Insurance with TachyHealth

Claims Processing Automation

Implementing automation streamlines claims workflows, significantly reducing processing times and administrative workload.



Increase team productivity

AI-Driven Fraud Detection

Leveraging artificial intelligence enhances fraud detection capabilities, minimizing losses and ensuring trustworthy insurance transactions.



Enhance the efficiency and optimize the performance

Real-Time Data Insights

Utilizing real-time analytics empowers informed decision-making, enhancing operational efficiency and customer-centric service delivery.



Increase the revenue and reduce the denial rate

Positioning FWA AuditorUAE at the top of AI-enabled Insurance companies



Operational Efficiency

TachyHealth optimizes insurance processes, reducing claim processing time and lowering operational costs through automation and data-driven tools.



Cost Reduction Strategies

By leveraging real-time FWA insights and automation, TachyHealth minimized insurance costs, making healthcare more affordable for consumers without compromising service quality.



Regional Vision

FWA Auditor aims to expand regionally, integrating advanced technology to enhance insurance ecosystems across the Middle East, setting new standards for digital transformation.



TachyHealth

Partners & Clients

Large enterprise private, government and international believers



الشركة الوطنية للتأمين التكافلي
National Takaful Insurance Co.



Empowered and supported by



NVIDIA



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KING ABDULAZIZ UNIVERSITY





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Triumphs in Insurance: Inspiring Case Studies and Beyond

The Business Problem

- Limited ability to audit all the claims efficiently
- Failure to detect FWA in real-time across the massive amount of claims
- Conflicting rules between different systems causing issues with providers

- FWA detection of the claims
- Increase the productivity & performance of the medical audit department
- Rank the most suspicious providers across 1000+ networks through detecting patterns



Client Needs

- Automating FWA workflow
- Auditing and reviewing claim at scale
- Scaling the ability to add/edit dynamic rules & share it internally with different teams



Key deliverables

- Additional saving of wrong claims from the medical point of view
- Increase productivity of the audit team
- Detect fraud patterns from the doctors, providers and members
- Provide a minimalistic and frictionless experience to the end users



40+ Million

Reviewing claim's activities



0.5%

Of the net payable amount saved



8 weeks

Work timeline

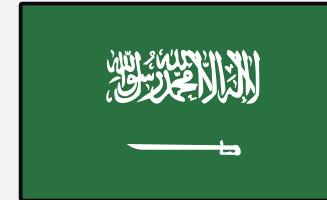


Triumphs in Insurance:

Inspiring Case Studies and Beyond

The Business Problem

- Massive amounts of claims data to be processed
- Lack of medical evidence for the medical rejection
- Failure to detect FWA in real-time
- Loss of revenue



Aim

- Implement full automation of the medical claims & approvals
- Optimize the problem of the unlisted medical codes
- Increase the productivity & performance of the medical audit
- Identify suspicious claims worth investigation



Client Needs

- Automate medical claims & approvals
- Support the decision with medical judgment
- Identify FWA cases
- Optimize the issues in the medical coding



Key deliverables

- Additional saving of wrong claims from the medical point with strong medical evidence
- Customized the medical decisions as per the local medical guidelines (KSA)
- Optimize medical coding problems (unlisted services)
- Detect fraud patterns from providers, doctors and members
- Productivity & efficiency improvements using AI & identifying potential FWA scenarios for further investigations



~7 Million

Reviewing claim's activities



95%

Accuracy in adjudication



10%

Outlier detection



For further
information,
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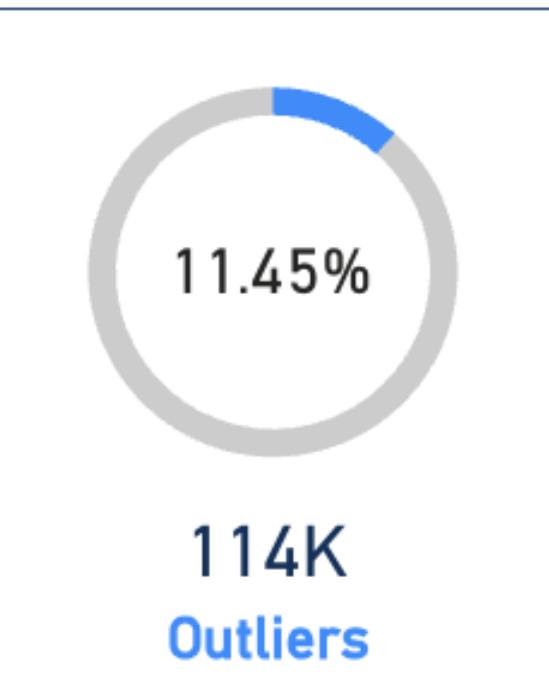


Overview Page:

Machine Learning Outcomes:

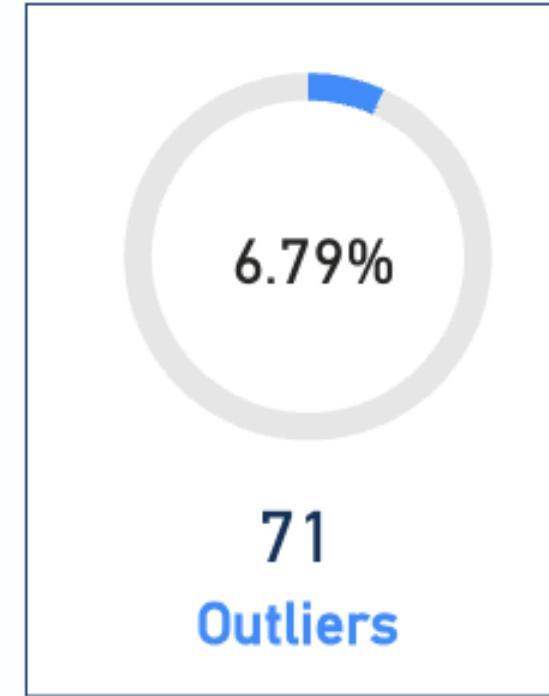
No of Claims

995.4K



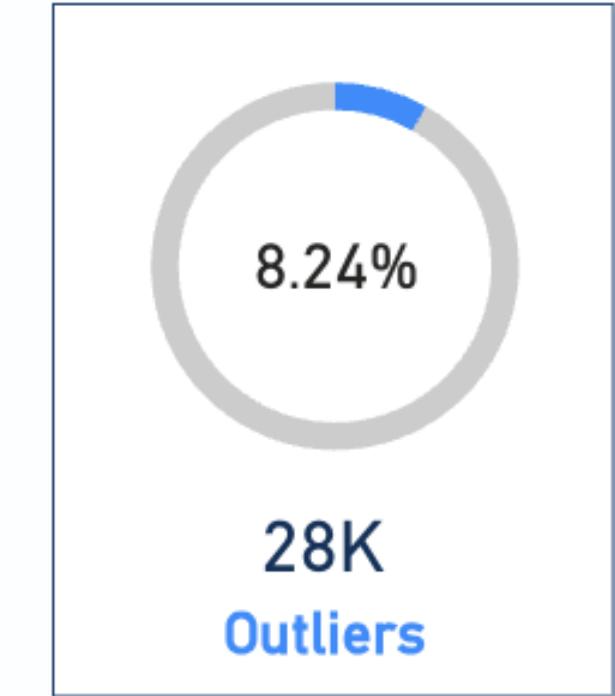
No of Providers

1,045



No of Patients

338.7K





Provider Ranking & Performance Trends: Comparing Q1 2024 to Q2 2024

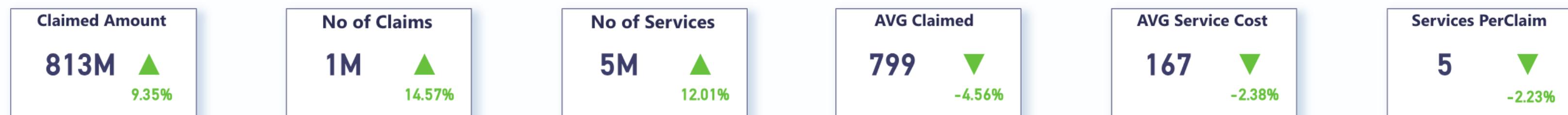
No Selection

Provider

All

Provider Type

All



Provider Region

All

All Benefits

In Patient

Out Patient

Dental

Optical

Provider Rank Tracking:

Provider	Provider Ranking	Claimed Amount	Flagged Claimed Amount	Claimed Diff %	No of Claims	Frequency	Severity	#Activities
98721636	17	1,767,511	405,409	77.06%	1,979	1.63	895.13	8,461
80512126	18	1,954,115	306,897	84.29%	1,740	1.72	1,123.05	9,388
11324	19	1,495,474	296,474	80.18%	3,481	1.82	429.61	16,105
10102	20	2,139,512	289,847	86.45%	1,756	1.60	1,218.40	10,537
20521153	21	16,442,174	267,366	98.37%	16,594	2.30	990.85	86,373
24079869	22	1,645,618	259,515	84.23%	2,915	1.42	564.53	17,035
32817243	23	16,793,773	255,352	98.48%	14,503	1.94	1,157.95	82,580
11191	24	792,419	221,776	72.01%	2,325	1.47	340.83	12,155
75742472	25	1,073,758	221,040	79.41%	1,450	1.63	740.52	6,699
13064	26	1,337,928	220,220	83.54%	1,721	1.58	777.41	9,752
14263275	27	663,202	216,099	67.42%	359	1.32	1,847.36	1,900
11258	28	1,560,245	208,210	86.66%	1,886	1.63	827.28	9,116
5673474	29	523,658	193,725	63.01%	1,713	1.65	305.70	9,781
10557	30	1,659,973	171,926	89.64%	2,641	1.72	628.54	14,555
9911714	31	1,739,757	170,739	90.19%	2,494	1.68	697.58	13,043
2495129	32	1,073,001	160,181	85.07%	921	1.57	1,165.04	6,067
10433	33	378,401	145,858	61.45%	775	1.47	488.26	3,409
13270	34	372,124	145,129	61.00%	945	1.71	393.78	5,984
34206692	35	339,808	142,535	58.05%	535	1.33	635.16	3,835
13063759	36	363,133	135,785	62.61%	546	1.54	665.08	3,899

Unraveling the Provider Trail:





Results

View by [Services](#) ▾[Export to Excel](#)

⋮	Action	Status	Service Line Number	Claim ID	Provider ID	Insured ID	Date of Birth	Gender	Claim Type
<input type="checkbox"/>			1	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial
<input type="checkbox"/>			2	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial
<input type="checkbox"/>			3	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial
<input type="checkbox"/>			4	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial
<input type="checkbox"/>			5	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial
<input type="checkbox"/>			6	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial
<input type="checkbox"/>			7	2024/2037729	11977	2330781523	02/12/1986	Male	Commercial



1

2



10



items per page

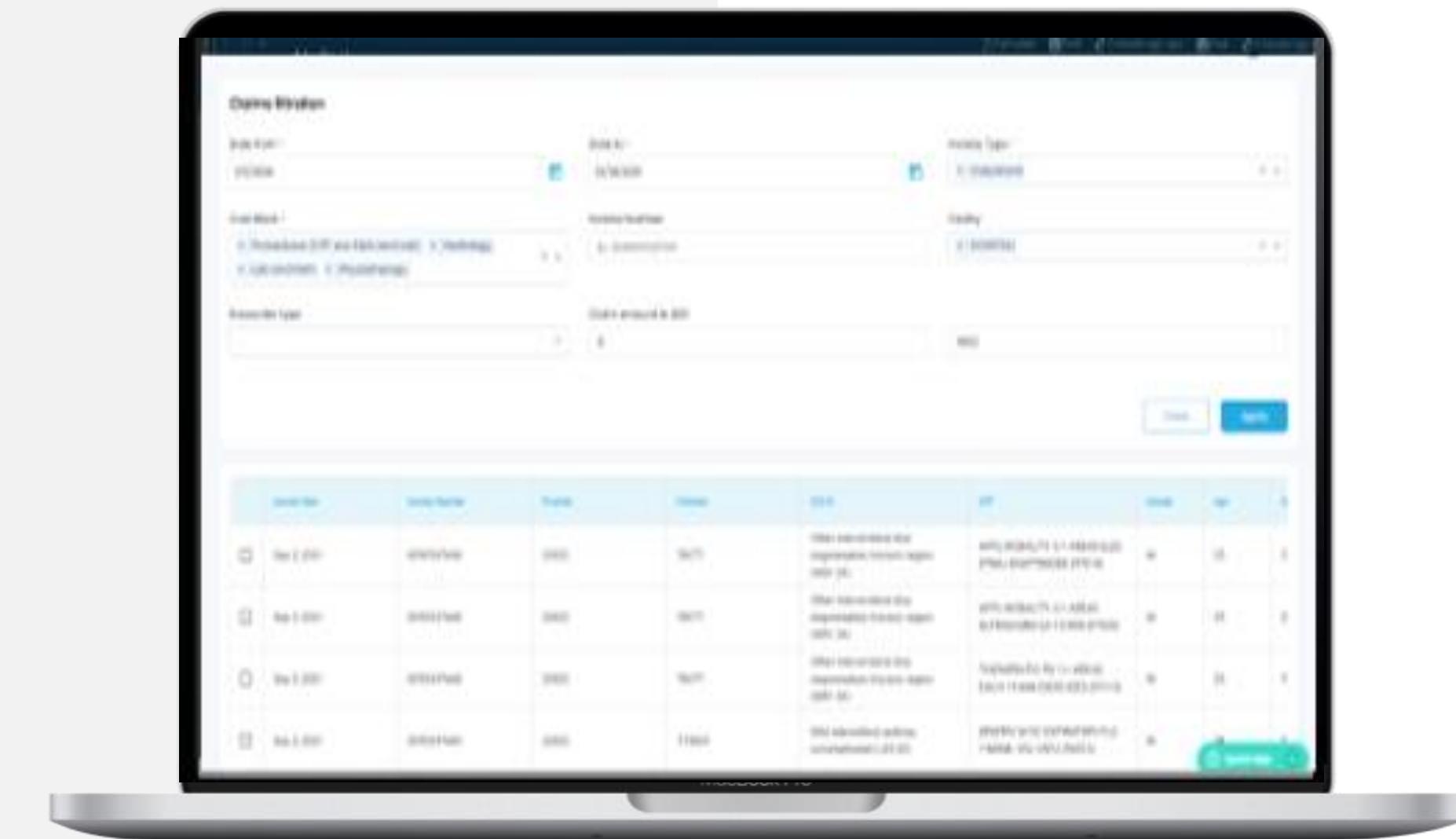
1 - 10 of 14 items

[+ Add Tag](#)[Delete Tag](#)[Back to MCA](#)[FWA](#)

iHop: Claims approval and claims adjudication Hybrid engine

Approvals and claims validation engine

- ✓ AI-powered medical claims reviewing platform to adjudicate, audit, and review approvals, claims and medical records more efficiently, automating the process and supporting faster robust decision-making. It increases productivity, maximizes revenue, and optimizes performance.



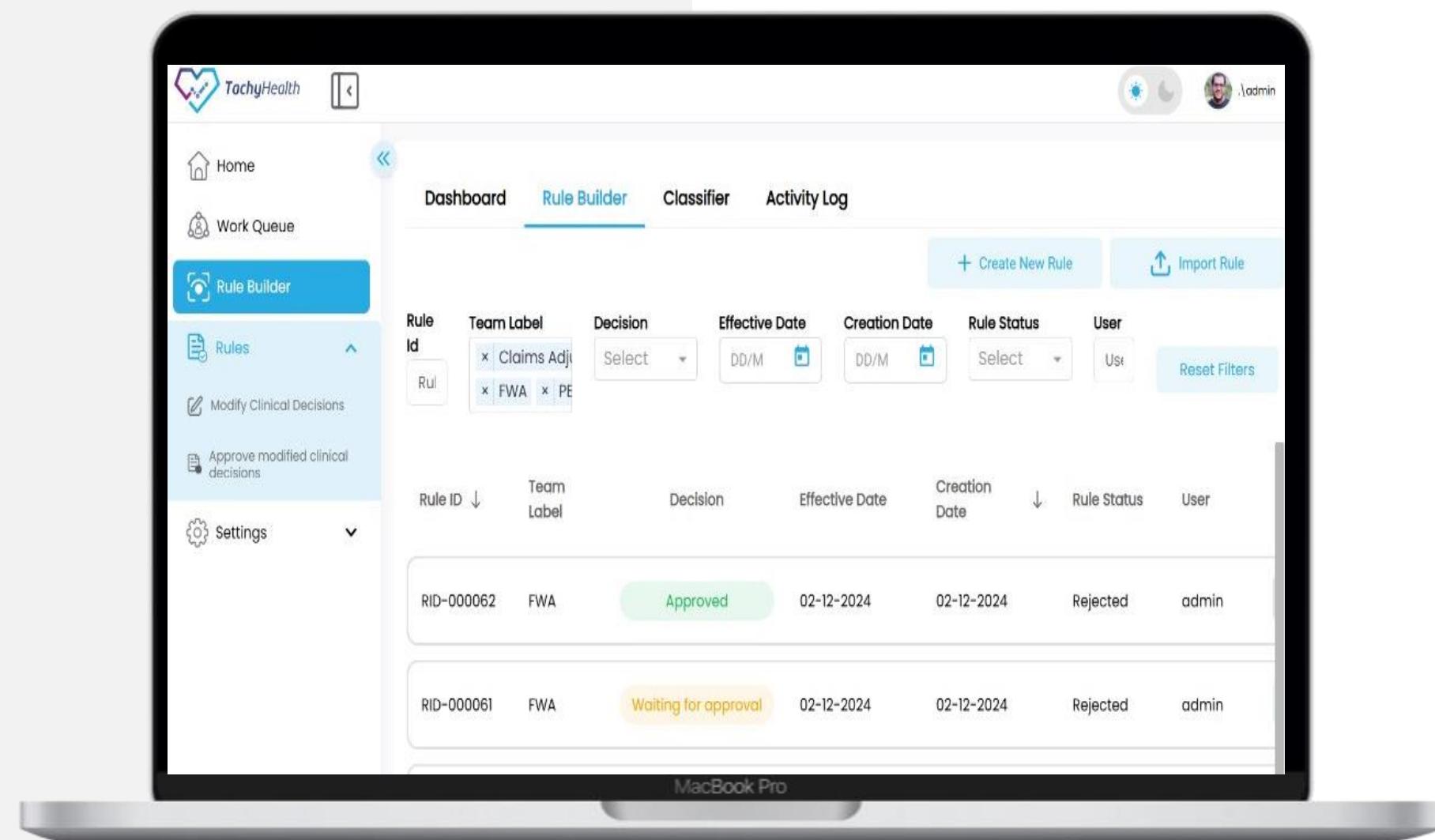
Supported by Gazal.AI

Advanced Rules management Studio

Configurable and easy to use rule manager to create, define, edit, and manage medical libraries and Business rules tailored to specific needs

Rule management Studio

- ✓ Rule management Studio is a centralized intelligent rules and scenarios builder that seamlessly manages, coordinates, and automates rules from medical approvals and claims team, FWA investigators, and policy and benefits team into one unified adjudication engine.
- ✓ Rule management studio transforms rule management from technical bottleneck to business enabler, achieving faster implementation, reduced costs, and enhanced compliance.



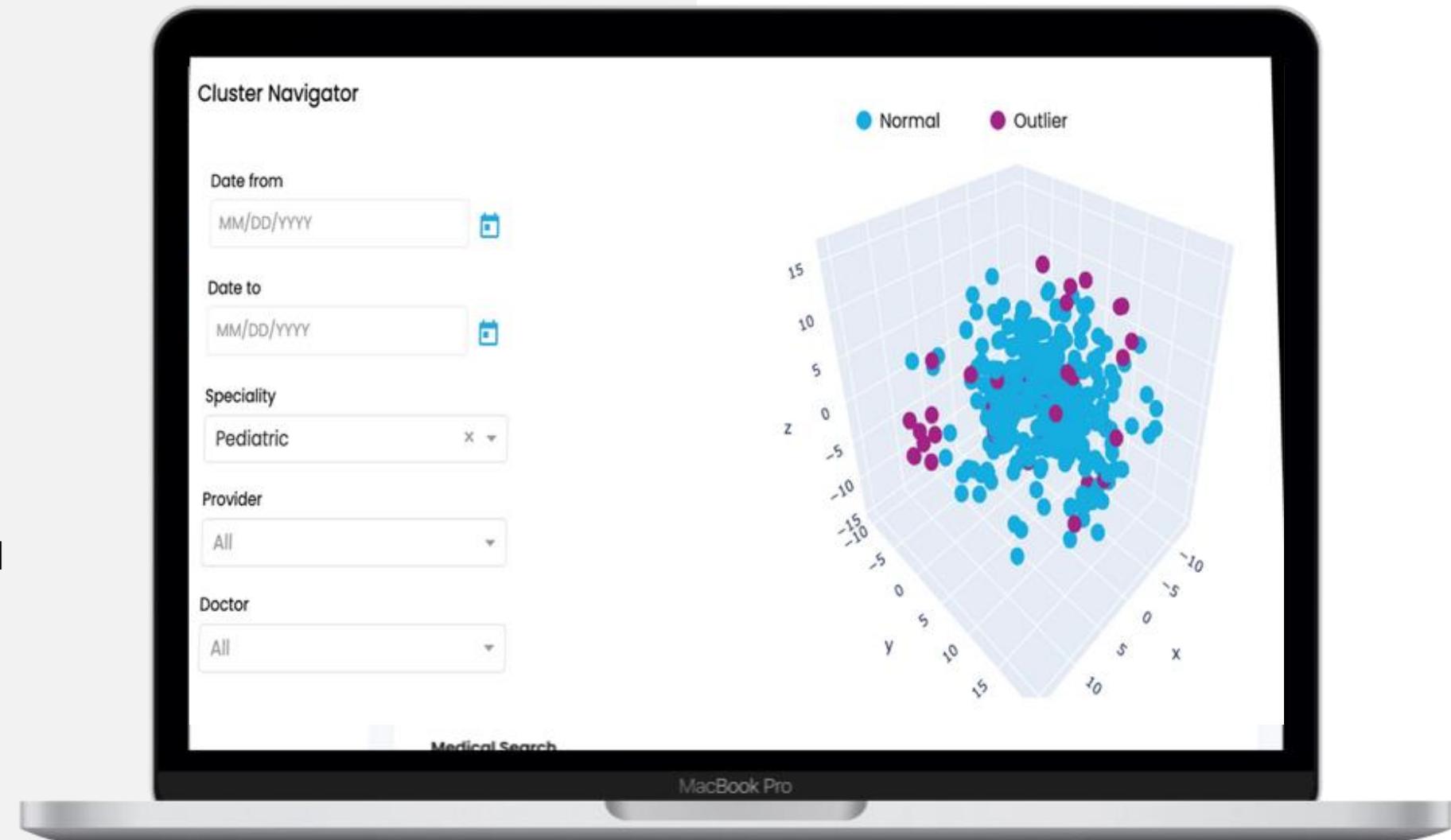
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AI-Powered FWA Protection Engine:

Safeguarding Tawuniya's Claims Ecosystem Through Real-Time Detection, Investigation & Prevention

FWA Detection tool

- ✓ iHop FWA tool is a Cluster Navigator, that can detect outliers and abnormalities through an easy visual representation. Colorful dots indicate outliers and detections for the team.
- ✓ 3D visualization powered by AI and ML detects behavioral patterns through our comprehensive FWA engine and 360Insights dashboard, providing real-time identification of suspicious activities across providers, doctors, members, and claims..
- ✓ Enabling large-scale audits and reviews with enhanced efficiency. This promotes real-time, data-driven decision-making, ultimately increasing team productivity, optimizing performance, and offering a gamified user experience.



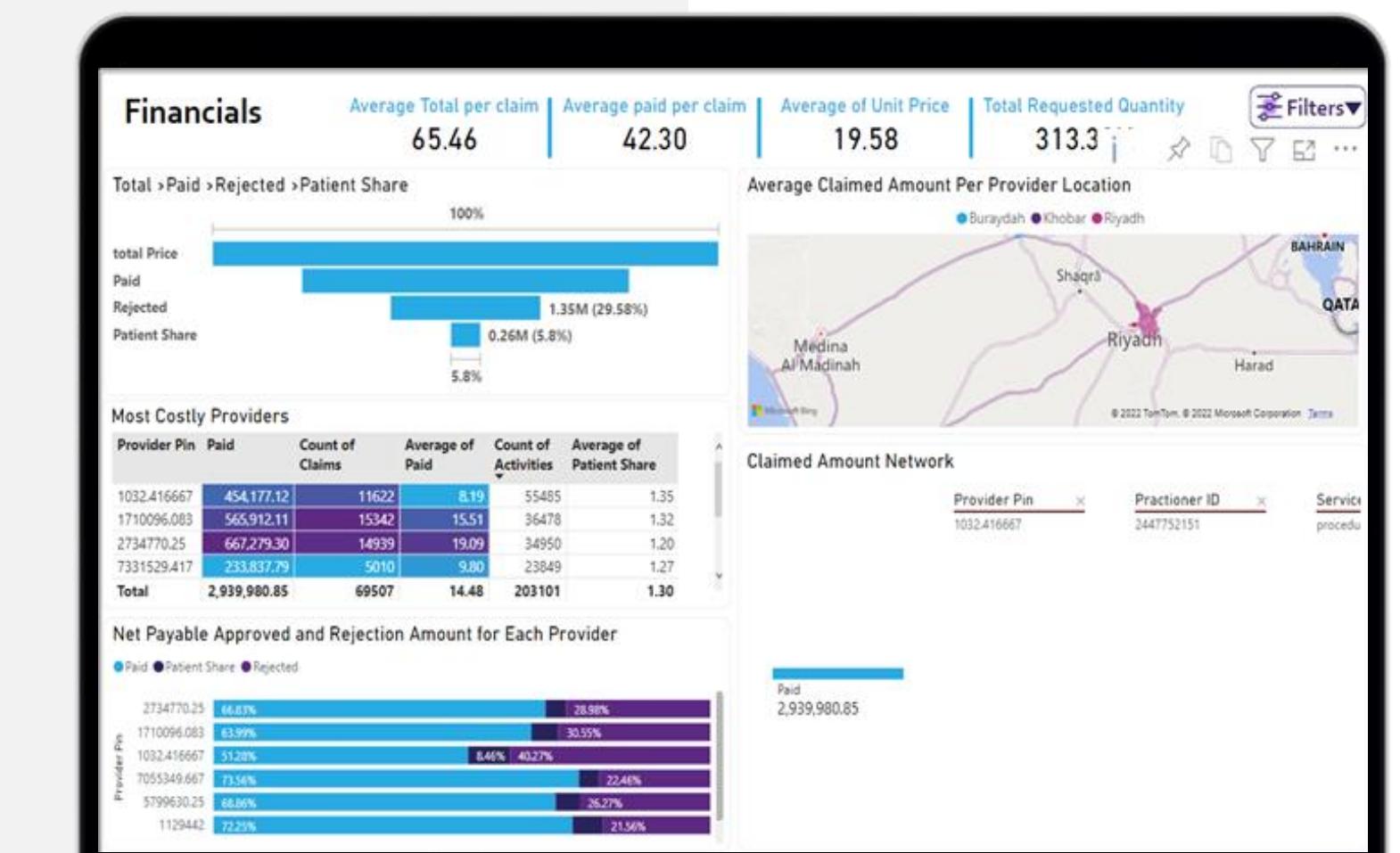
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Interactive Dashboard

Real-Time Business Intelligence: 360° Analytics Dashboard for Health Claims Adjudication Lifecycle

Interactive Dashboard

- ✓ Tracks all claims-related activities and interactions and visualizes KPIs and insights and leverages the real-time dashboard to identify patterns, discover trends, and predict behavior.
- ✓ This drives actionable decisions for the entire claim process, including financial, medical, and utilization, for providers and members.



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