



Enterprise data warehouse & BI infrastructure implementation

Orthodontic care provider

Developed Data Lake and BI infrastructure to integrate data from 8 Practice Management System(PMS), 2 Marketing data sources, and managed PMS migration during acquisition to provide a consistent, comprehensive and exhaustive Analytics/ Reporting solution using Power BI, to further accelerate the data visibility for acquired entities

Orthodontic care provider needs Enterprise data warehouse & BI infrastructure implementation

Picture this...

You're looking to build comprehensive and scalable cloud data warehouse by integrating source systems across all the practices into a central data repository to provide better transparency and insights to business performance. You have adopted a profit-sharing model with the acquired Practices, and they lacked visibility into their Business performance due to different granularity of data in multiple systems and absence of single source of truth for reporting. Additionally, you were facing challenges with reporting data during the migrating of acquired Practice Management Systems (PMS) to the existing core PMS systems.

You turn to Accordion.

We partner with your team to provide enterprise level visibility into acquired practices business performance and reducing the turn-around time to integrate acquired practices data into Management reporting, which further accelerated the monthly acquisitions rate, including:

- 1) Integrating data for 45 practices from 08 different Practice Management source systems into CDMs (Revenue, Contract, Patient and Appointment)
- 2) Building the Management dashboard to monitor key operational performance of all practices; Marketing dashboards to analyze the spend on multiple digital marketing channels; and HR dashboard to make informed decisions regarding workforce including recruitment, retention, diversity and inclusion
- 3) Creating consolidated and uniform Practice rating system by assigning the scores to individual KPIs for all Practices
- 4) Developed a framework to ensure a seamless migration of data from acquired PMS systems to existing PMS systems for the reporting suite, including transition date parameterization, data field mapping between the systems, control of data flow at the data table and metric levels in the Clean zone, etc.
- 5) Providing consulting support on optimizing Azure resource costing, exception monitoring using Power Automate and setting up Dataddo tool for Facebook Ads data integration

Your value is enhanced.

The integration period for incorporating practices into the reporting suite was decreased from ~6 months to ~1 month, enabling you to accelerate acquisition speed by ~200%. The Management dashboard provided real-time visibility on the operational performance of all practices with metrics like Patient Adds, Aligner Mix, Net Production, etc. It has saved an effort of 50-60 man-hours on the monthly basis. Multiple business logic issues were addressed during data exploration and validation, including mis-accounting of Adjustment data, incorrect logic to count New Patient Add, etc.

KEY RESULT

- Saved an effort of 50-60 person-hours on the monthly basis
- Reporting suite was decreased from ~6 months to ~1 month
- Enabling you to accelerate acquisition speed by ~200%.

VALUE LEVERS PULLED

- Setup Data Warehouse infrastructure
- Practice Performance tracking and reporting

Enterprise data warehouse and BI infrastructure setup for healthcare provider

Situation

- Client has adopted a profit-sharing model with the acquired Practices, and they lacked visibility into their Business performance due to different granularity of data in multiple systems and absence of single source of truth for reporting. Additionally, the client was facing challenges with reporting data during the migrating of acquired Practice Management Systems (PMS) to the existing core PMS systems.
- Partnered with the client to build comprehensive and scalable cloud data warehouse by integrating source systems across all the practices into a central data repository to provide better transparency and insights to business performance.

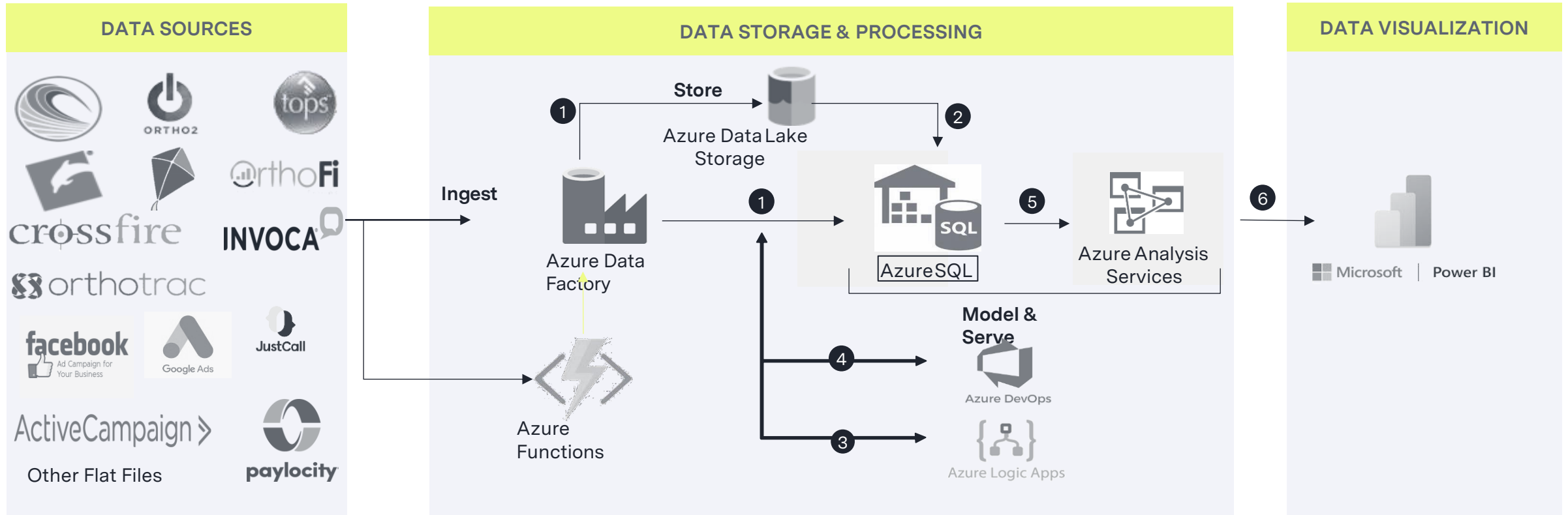
Accordion Value Add

- Integrated data for 45 practices from 08 different Practice Management source systems into CDMs (Revenue, Contract, Patient and Appointment)
- Built the Management dashboard to monitor key operational performance of all practices; Marketing dashboards to analyze the spend on multiple digital marketing channels; and HR dashboard to make informed decisions regarding workforce including recruitment, retention, diversity and inclusion
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Impact

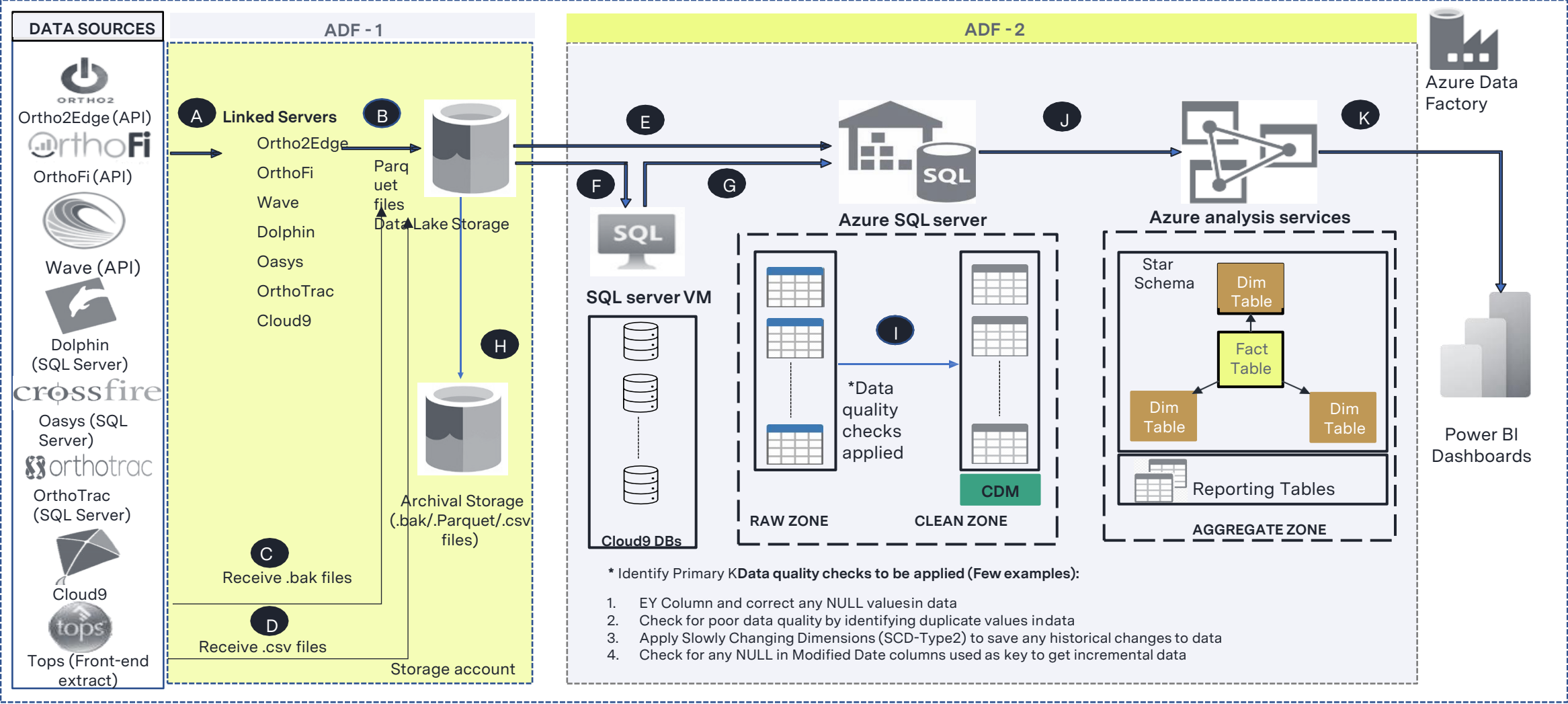
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Enterprise data warehouse – High level design

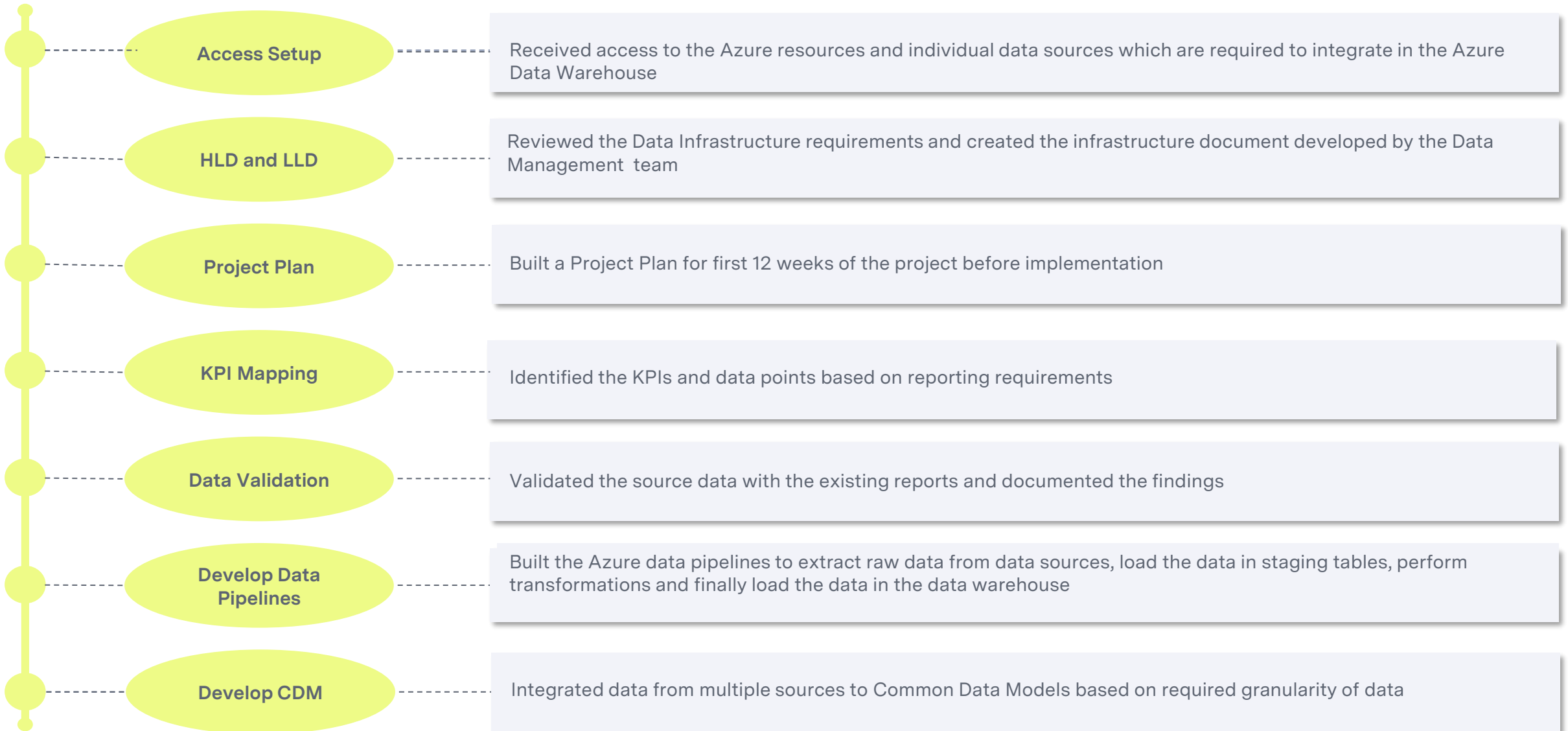


- 1 Collate and ingest data from data sources using Azure Data Factory and/or Azure Function either to Azure Data Lake or Azure SQL Database
- 2 Azure Data Lake to serve as “single data repository” across the organization, required data combined with other types to generate 360° view of the customer
- 3 Azure Logic Apps – Workflow managed Service to execute automated ETLactivities
- 4 Azure DevOps – Version Control & Code RepositorySystem
- 5 Consolidate and harmonize the data and push the data into Analysis Services for data modellingpurposes
- 6 Build operational reports and analytical dashboards on top of Azure Analysis Services to derive insights from thedata

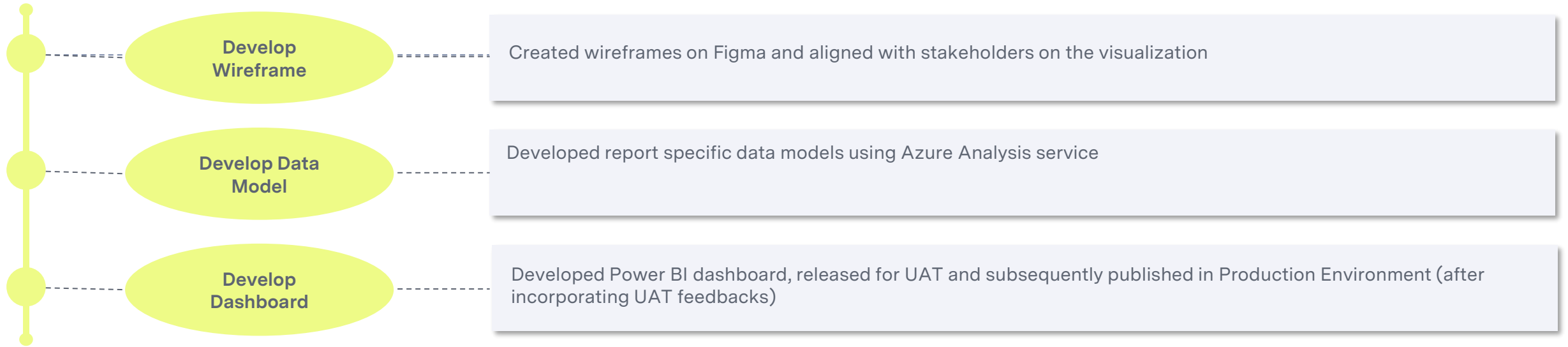
Enterprise data warehouse – Low level design – PMS integration



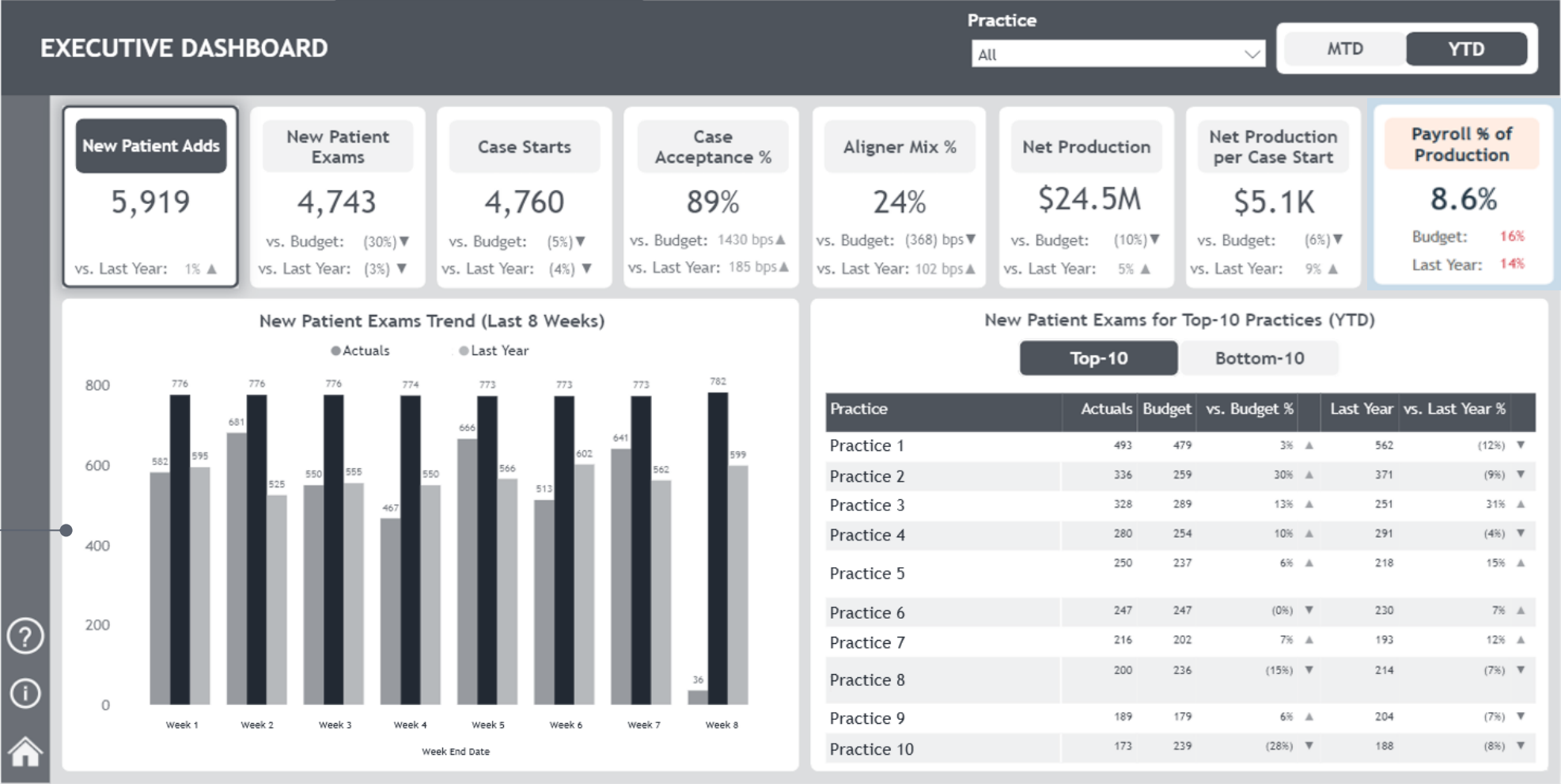
Methodology/ Approach (01/02)



Methodology/ Approach (02/02)



Executive KPI summary



Last 8 weeks trend for selected KPI (Here, it is New Patient Adds)

Consolidated practice scorecard

Practices with same Total score are assigned with same Rank

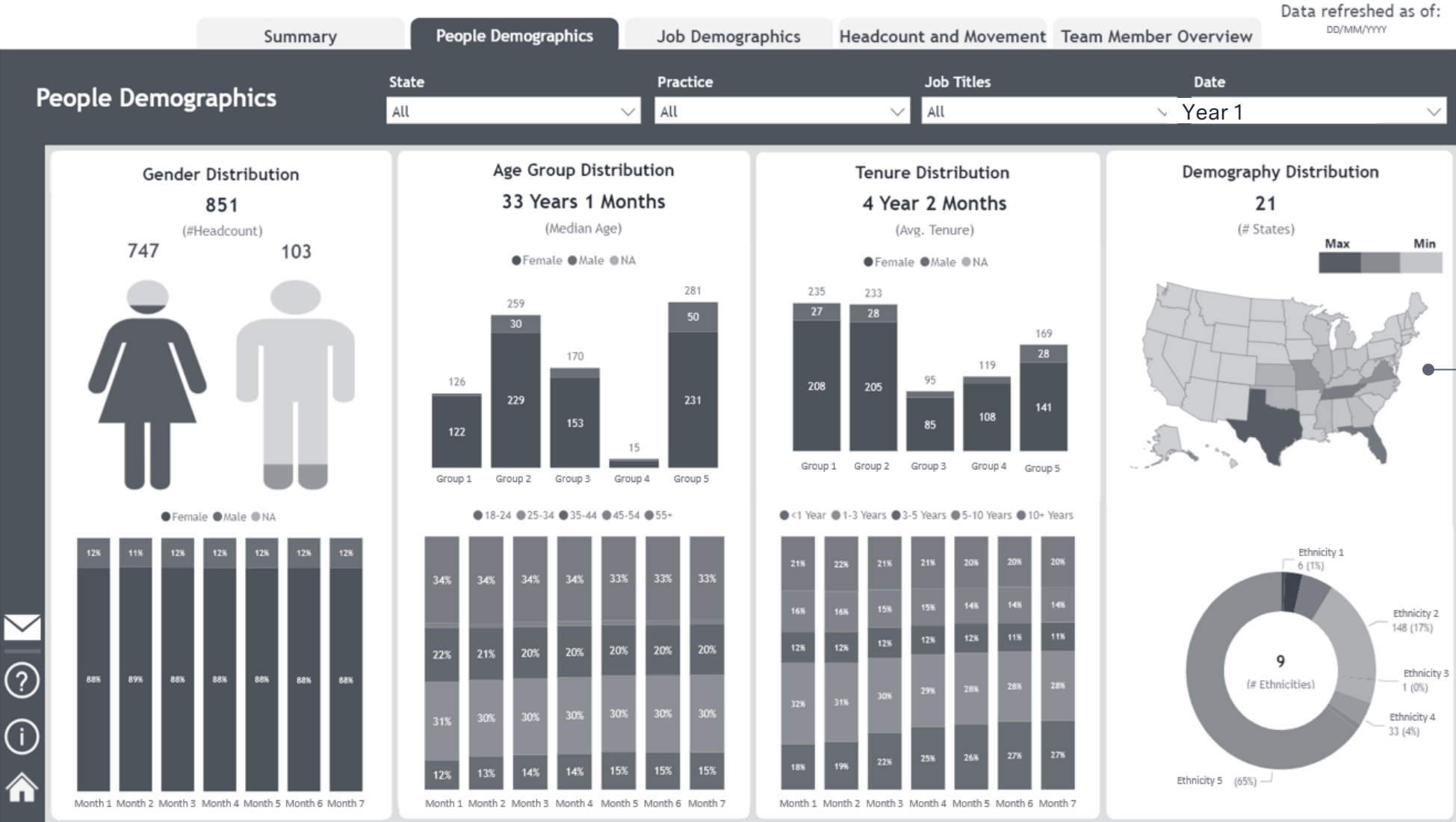
PRACTICE SCORECARD

MTD

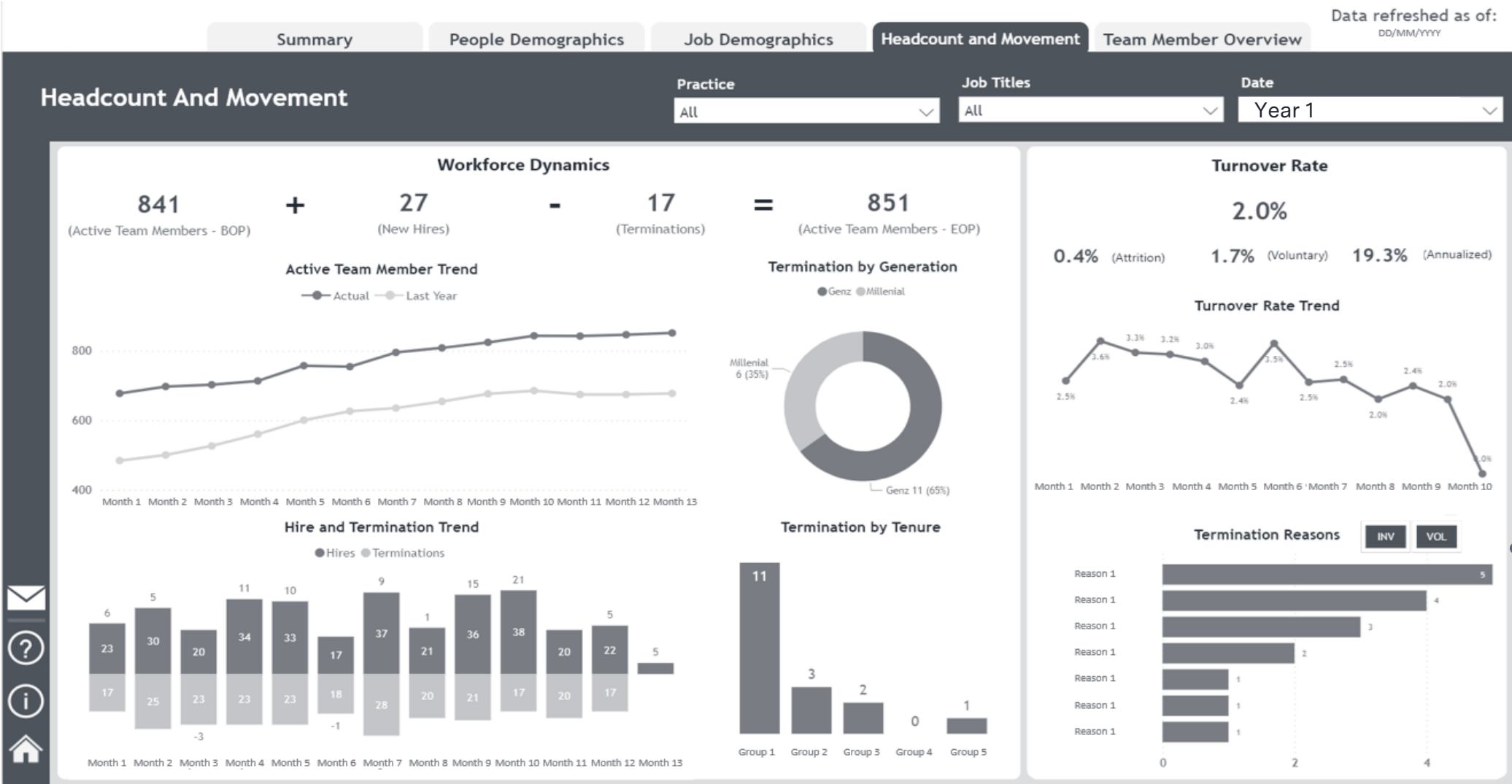
YTD

Rank	Practice	Net Production	New Patient Exam	Case Acceptance %	Net Production per Case Start	Net Production per Doctor Day	Payroll % of Production	Total Score	Last 12 Months Trend(Total Score)
1	Practice 1	2	3	3	3	2	2	19	
2	Practice 2	1	2	3	3	1	2	15	
2	Practice 3	2	0	3	3	1	2	15	
2	Practice 4	2	1	3	3	0	2	15	
5	Practice 5	1	3	3	1	1	1	12	
5	Practice 6	1	2	3	2	1	1	12	
5	Practice 7	1	2	2	3	1	1	12	
8	Practice 8	1	3	3	0	1	1	11	
9	Practice 9	1	3	2	0	1	1	10	
9	Practice 10	1	0	3	2	1	1	10	
9	Practice 11	1	2	3	0	3	0	10	
9	Practice 12	1	1	3	2	0	1	10	
13	Practice 13	1	1	3	0	1	1	9	
13	Practice 14	0	3	3	0	1	1	9	
15	Practice 15	0	0	3	2	0	1	7	

People demographic view

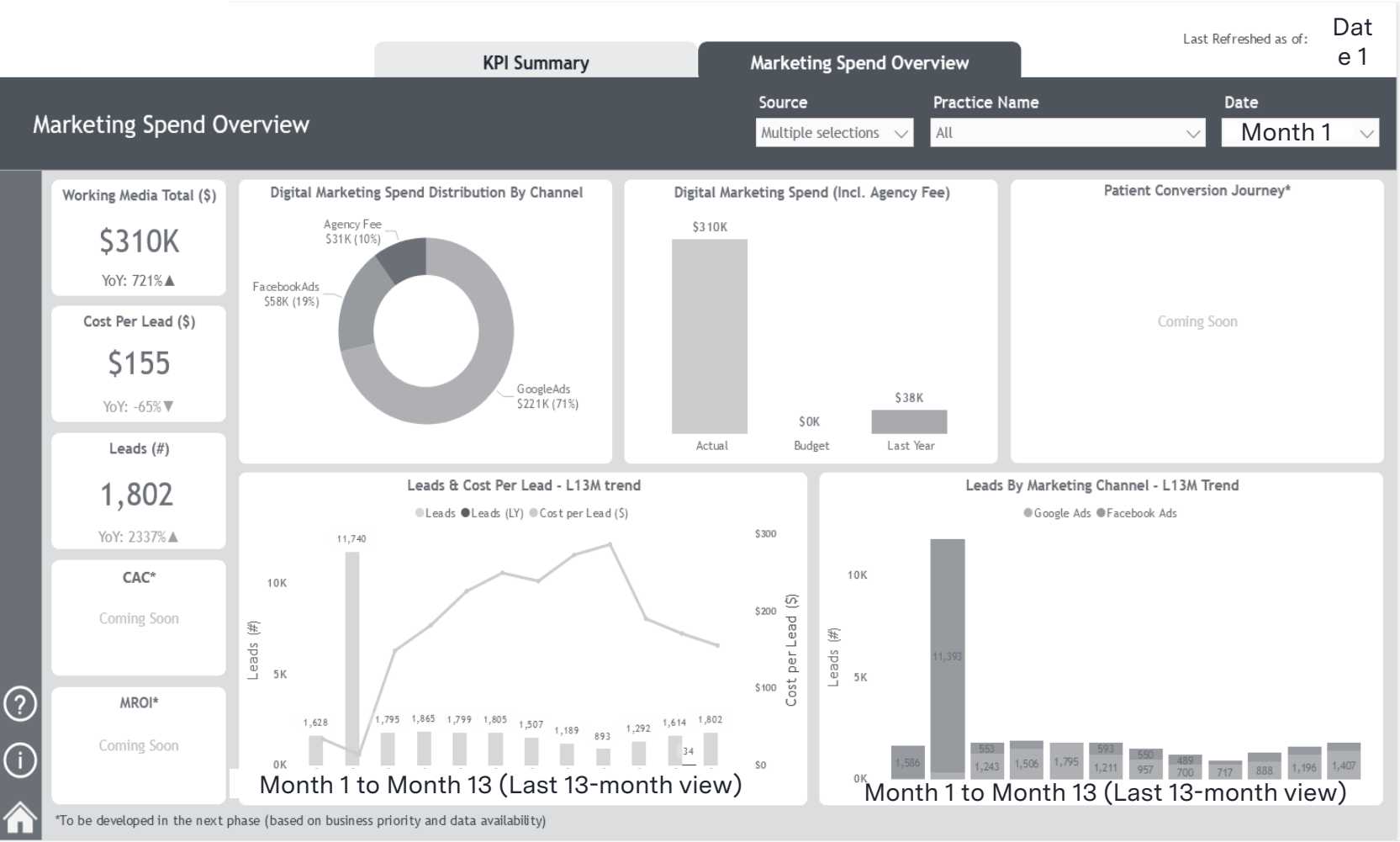


Headcount movement view



Provided visibility on Terminations based on Involuntary and Voluntary reasons

Marketing spend dashboard



The dashboard provided overview of spend related KPIs on the Marketing channels