

BENEFITS OF DATA REUSE



eBook Series: Data Reusability with **Power BI**

Part I

Data Reusability with **Power BI**

The eBook Series

Part I



BENEFITS OF DATA REUSE



eBook Series: Data Reusability with **Power BI**
Part I

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info@syntrixconsulting.com

Download parts II and III for a more comprehensive understanding of data reusability.

Part II



7 COSTLY MISTAKES OF
DATA REUSE

and How to Avoid Them



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info@syntrixconsulting.com

Part III



BEST PRACTICES FOR DATA
REUSE



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info@syntrixconsulting.com



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Authors



JEAN-LUC COQUEREL

CEO | Healthcare Analytics Strategist

Jean-Luc takes pride in leading a team solely focused on healthcare analytics. Syntrix assists hospitals with adopting analytics systems like Power BI and developing custom reports and dashboards. Jean-Luc trained as an industrial engineer in France and in the United States and had a chance to work in the supply chain and healthcare industries. He has a bias for thinking that there is a process behind everything and if you engineer the right process, you can achieve high-quality results. In his spare time, he enjoys playing soccer, especially with his three wonderful children.



LARS KEMMANN

Principal Solutions Architect

Lars has been working with Microsoft Cloud technologies since the public beta of Azure back in 2009. He is also an engineer by training, with a focus on distributed systems design, and has worked with organizations ranging from startups to Fortune 500 companies on modernizing their systems. Lars is passionate about the topic of how data flows through systems, and he is excited to share more with you in this book about how you can leverage those principles in Power BI. In his spare time, he enjoys reading and hiking.

Co-author



CORINE CHARTOUNI

BI Developer

Corine holds a Master's degree in Information Systems from California State University, Los Angeles. With three years of experience in Power BI, she recognizes its value when aligned with a company's strategy. Corine excels at transforming data into insightful visualizations, empowering organizations to make informed decisions. Her ability to bridge the gap between data and business strategy makes her an invaluable resource for organizations seeking to unlock the true potential of their data using Power BI.



Let's
Discuss



INTRODUCTION

"Doing more with less is a crucial principle to learn: especially if you're going to be in business in this rapidly changing world."

~ Robert T. Kiyosaki

Doing more with less is often imposed on us as a **constraint**. We hope you will see that this principle can guide our strategic approach to Power BI as we seek to get more value from our data assets.



Before you can develop a data reusability strategy, you **need** to have a **vision** for the 'art of the possible' on the Power BI platform.

We begin with exploring **why and how** reusing data assets can **make or break** your Power BI adoption success. We will then review the data reusability capabilities in the Power BI platform, including several features and integration points that most organizations are not even aware of.

POWER BI IS THE MARKET LEADER IN SELF-SERVICE BI PLATFORMS, BUT ARE YOU TAKING ADVANTAGE OF ALL IT HAS TO OFFER?



REUSE

**WHAT IS DATA REUSE AND
WHY IS IT IMPORTANT?**

Data reusability is essential for a **modern** organizational BI strategy, especially when using **Power BI** as a self-service platform.

By embracing data reuse, organizations can **unlock exponential value** by interconnecting data products and enabling diverse users to derive business insights without reinventing the wheel each time.

This approach ensures that existing data assets are utilized in various unexpected ways, delivering on the promise of a **self-service BI platform**.



Data reuse means the organization can leverage existing data assets to generate new insights.

Data reusability is vital for **optimizing data analysis and decision-making**. By leveraging the reuse of data models, queries, and artifacts in Power BI, organizations enhance their **operational efficiency and promote collaboration**.

- This approach eliminates redundant efforts, guarantees consistency and accuracy in reports and dashboards, and cultivates a data-centric mindset.
- It **empowers** end-users to delve into their data autonomously, enabling them to gain comprehensive insights and make well-informed business decisions.

WITHOUT DATA REUSE, POWER BI IS LIMITED TO PUBLISHING REPORTS WITHOUT FULLY LEVERAGING ITS POTENTIAL.



BENEFITS OF DATA REUSE

The concept of data reusability in Business Intelligence (BI) organizations is logical and intuitive, but **it requires a long-term perspective**. Amidst the pressures of daily decision-making, there is a tendency to prioritize short-term outcomes and overlook broader benefits. It is crucial to periodically remind ourselves of the remarkable potential we can achieve and prioritize long-term benefits. Building a data reusability strategy involves **strategic thinking and direction to change course**. Here are key advantages that organizations and your customers truly value, allowing you to push back on expedited requests and align with the organization's strategy:



Reduced overall development effort compared to short-term turnarounds initially.



Fewer requests for BI developers instead of building numerous variations or overloaded reports.



Empowered self-service users taking ownership, reducing dependence on the central BI team.



Improved quality through consistency, avoiding copy-pasted queries and outdated calculations.



Enhanced security with centralized access control and row-level security in core data dependencies, preventing uncontrolled query sprawl.





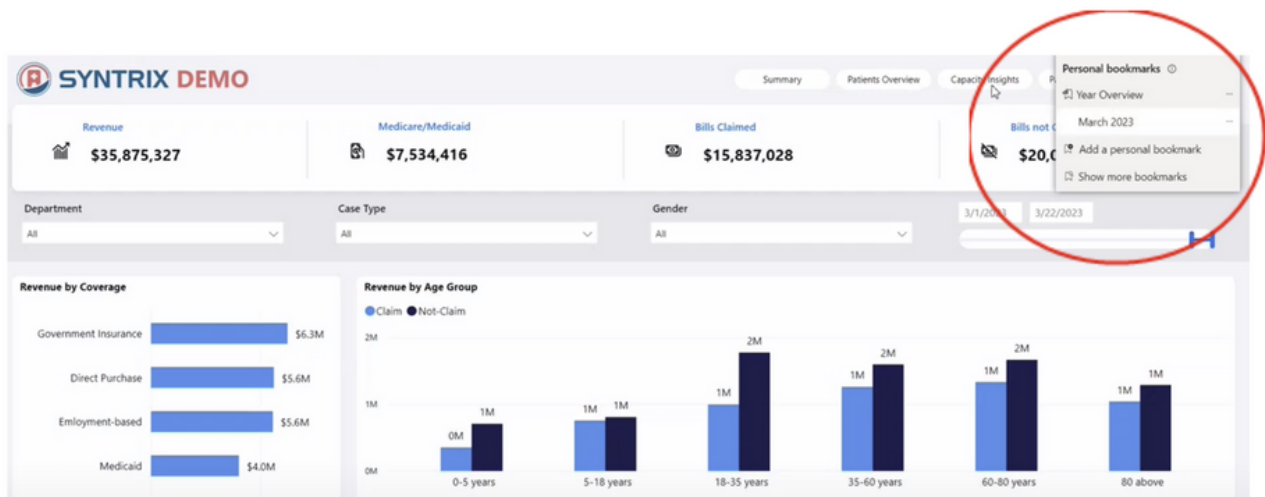
POWER BI DATA REUSE FEATURES IN ACTION

LET US CONSIDER A FICTIONAL BUT COMMON SCENARIO:

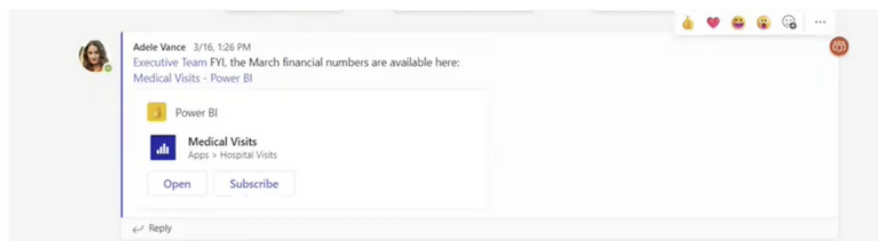
A hospital CFO collaborates with the executive team to monitor the hospital system's revenue. To facilitate this, the business intelligence (BI) team has developed a Power BI app that the CFO will utilize during her discussions with the executive team.

★ FEATURE 1: **Bookmarks**

Upon launching the app, the CFO's focus turns to the cost page, specifically honing in on the results for the month of March. To streamline this process for the team, she decides to create a bookmark and share it through Teams.



Within Teams, she shares a simple link that leads directly to the March financial figures. Consequently, anyone clicking on the link gains access to the precise page and applied filters.

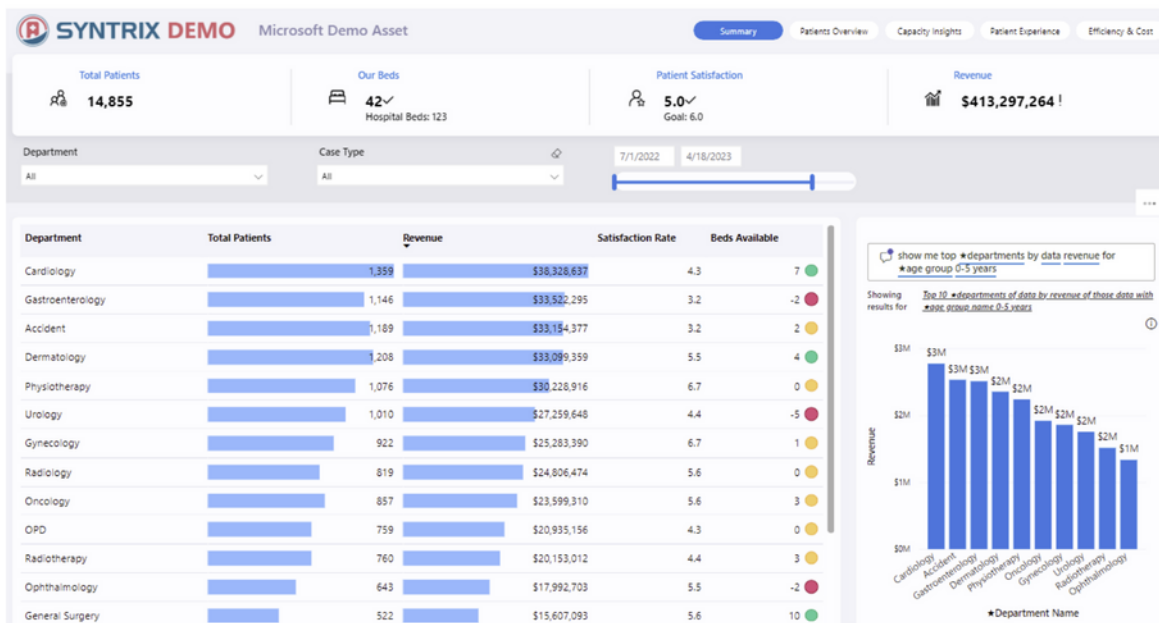


★ FEATURE 2: Q&A

Our resourceful CFO wants answers to additional questions the report does not provide. Enter Power BI's remarkable Q&A feature. Using natural language chat, this tool unlocks additional insights from the same dataset that sits behind the visual content of the report.



Power BI's Q&A feature empowers users to effortlessly query data in new ways that were not anticipated by the report developer. By leveraging advanced AI and a well-structured semantic model, Q&A translates questions into meaningful visualizations and insights. This interactive tool understands context, synonyms, and aggregates, enabling dynamic exploration and filtering as well as various on-the-fly visualizations.

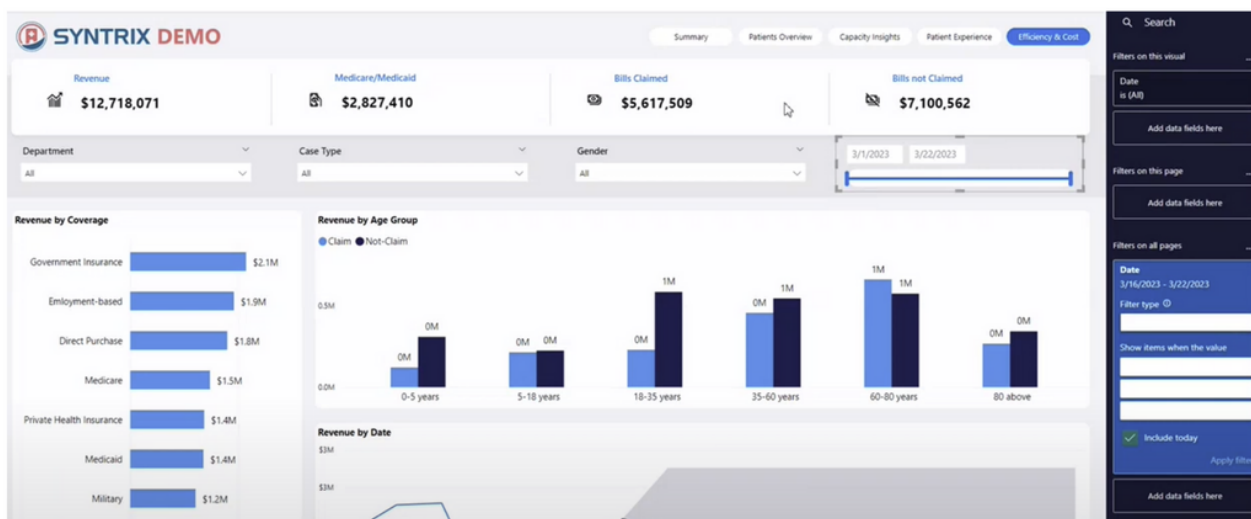


★ FEATURE 3: **Advanced Filtering**

Our CFO wants to share her customized view of the latest report data with the executive team every month, but creating new bookmarks each month is impractical and she knows that, even if the BI team prioritizes her request above everyone else's, making an across-the-board change to this report that will impact all its other consumers is not feasible either. Instead, she decides to make a copy of the report and apply a customized relative date filter to her copy that she then shares with the executive team.



Power BI's advanced filtering, including relative date filtering, empowers end users to efficiently customize reports for different time periods, departments, or other data subsets. In particular, the relative date filters will always update automatically. Once the report is updating itself with the target audience's filtering needs, it is easy to share a bookmark just like we saw earlier, providing an always-current view to the report users and streamlining decision-making.



★ FEATURE 4: Data Lineage

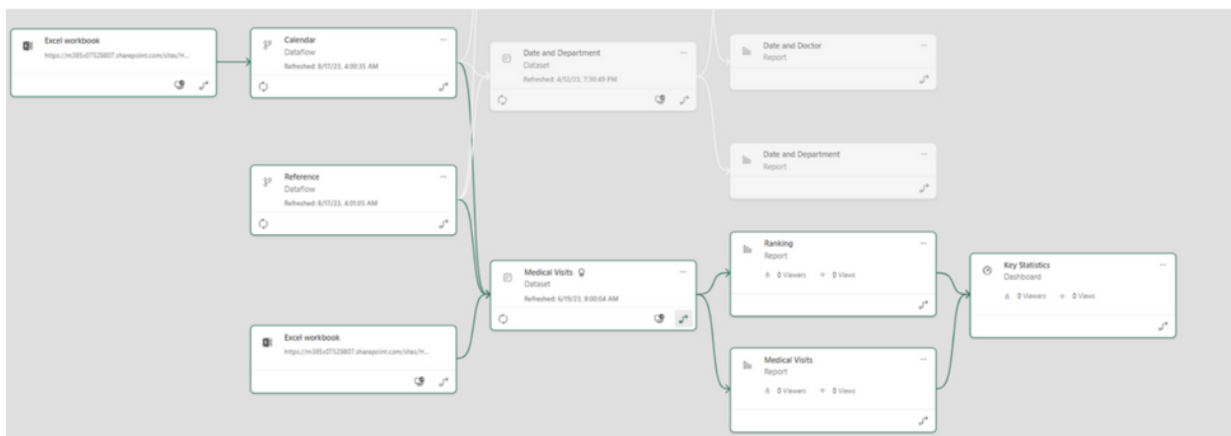
Power BI's data lineage feature provides valuable insights into the origin and transformations of data within a report, offering a clear understanding of its source and evolution.

By tracing data lineage, users can pinpoint the data's origin, whether that is a combination of databases, spreadsheets, or other sources. They can also see intermediate transformations applied to the data, including dataflows and derived datasets. This level of visibility enhances the ability to identify potential errors, inconsistencies, or discrepancies, enabling timely corrections and data quality improvements.



Data lineage also supports effective collaboration among team members. As reports are shared and worked on collaboratively, understanding the data's history helps team members comprehend the context and purpose of specific data assets. This, in turn, promotes better decision-making and reduces the risk of misinterpretation.

The CFO can now confirm that she understands which dataset her report's data is coming from which assures accurate reporting. By tracking data's journey from source to report, she ensures reliability, complies with regulations, identifies issues, and makes informed decisions. This understanding also fosters effective communication, accountability, and data quality improvement.

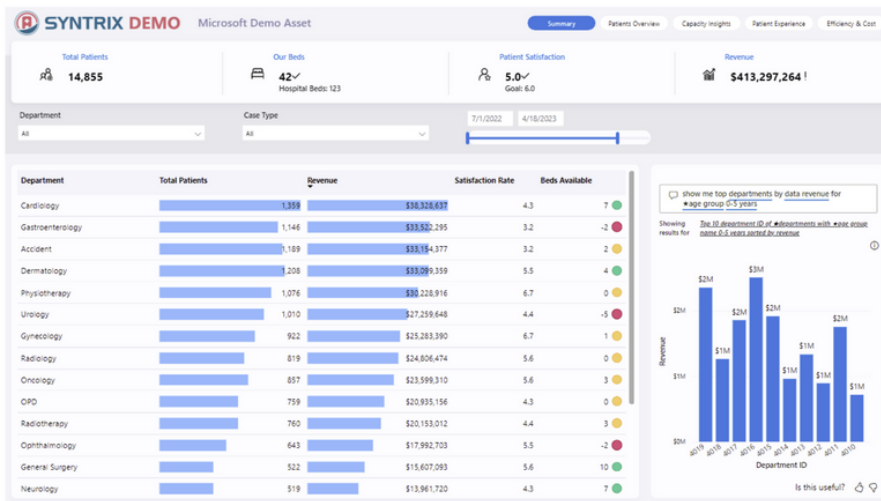


★ FEATURE 5: PowerPoint and Power BI Integration

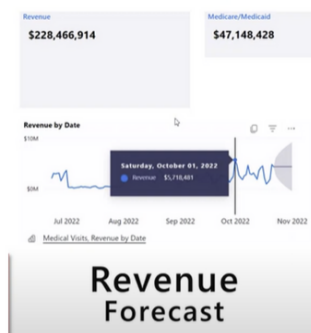
Power BI's PowerPoint integration lets users maintain a dynamic connection between their reports and their presentations. When updates or changes are made to the underlying data or visuals in Power BI, those modifications are reflected automatically within the PowerPoint slides. This eliminates the need for manual updates and ensures that the presentation always reflects the latest insights.



Power BI's PowerPoint integration enables our CFO to effortlessly embed live Power BI visuals directly into her presentation slides, instead of manually copying data or charts into her executive presentation every month.



The CFO is interested in only showing the KPI cards at the top to present as a summary for the executives. Using the PowerPoint integration, she can take the visuals of interest and add them to her slide. Below is the finished result in PowerPoint:

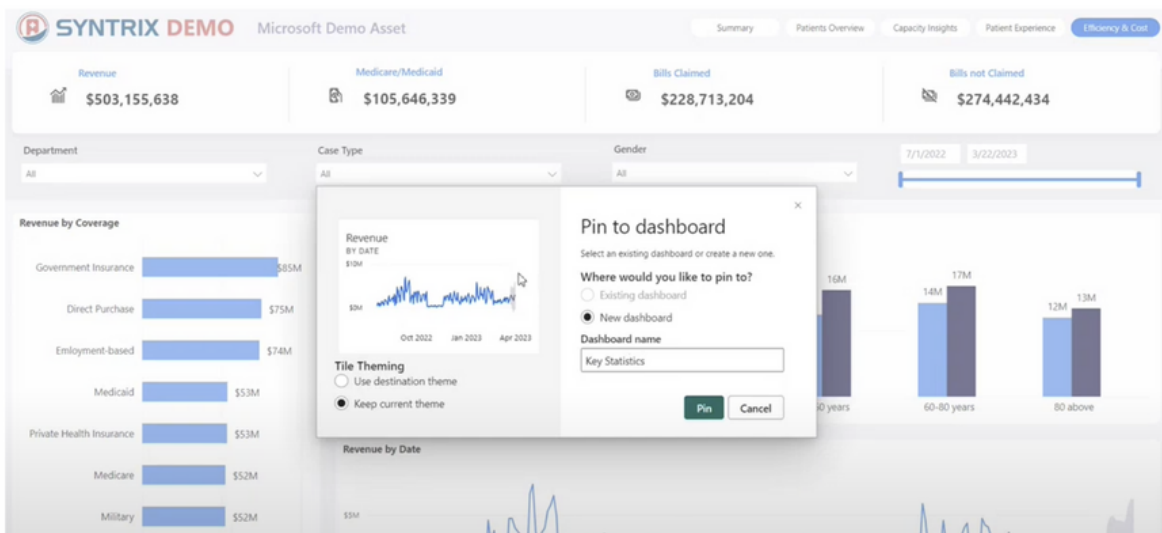


★ FEATURE 6: Pin to Dashboard

Power BI dashboards are a dynamic feature that showcases visuals from different reports and datasets in a unified space. These visuals retain their live connection to the underlying data, while also enabling dashboard-level Q&A. Pinning visuals to a custom dashboard fosters comprehensive analysis, revealing insights and patterns across diverse data sources. It encourages collaboration, enables storytelling, and streamlines decision-making by presenting a cohesive data narrative.



The CFO pins monthly revenue charts from an accounts receivable report and an expenses-to-budget KPI visual from another report to a new dashboard. She then creates a new visual in the dashboard using Q&A to give her the at-a-glance view of data she needs for her weekly budget forecast review. Rather than having to wait for a custom-built report, these self-service techniques that reused existing reports saved the CFO time and ensured her personalized dashboard will always be up-to-date with the data in the underlying reports.

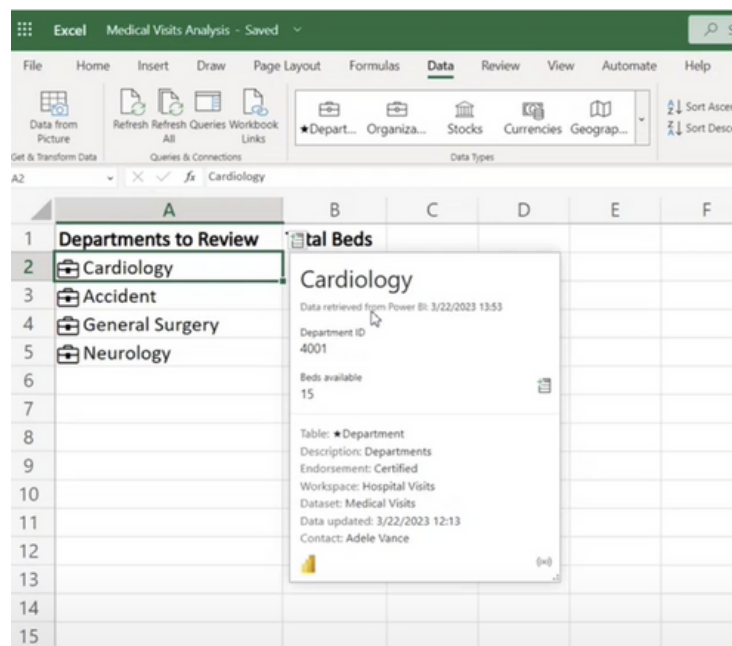


★ FEATURE 7: Analyze in Excel and Featured Tables

Finally on our tour of data reuse features in Power BI is the 'Analyze in Excel' option, which adds another level of versatility. This feature enables a live connection to any Power BI report's underlying dataset from Excel, allowing users to harness the full power of Excel for in-depth analysis on their own PC. With 'Analyze in Excel', you can easily pivot and examine your data and even enrich it by combining it with existing data sources.



One particularly valuable aspect of the Excel integration with Power BI is the Featured Tables capability. When a dataset developer marks a table in their dataset as 'featured,' it automatically shows up as an organizational data reference type in Excel without requiring users to know about or connect to a Power BI report at all. This can be a great way to define reference data, such as organizational departments or teams, providers, cost centers, budgets, and more, each of which can have many data fields; the result of providing this reference data in Featured Tables is the ability to provide uniform and up-to-date reference data across both Power BI and Excel analytics.



The screenshot shows an Excel spreadsheet with a table titled 'Departments to Review' and a detailed view of the 'Cardiology' department. The table has the following data:

Department
Cardiology
Accident
General Surgery
Neurology

The detailed view for 'Cardiology' shows the following information:

- Department ID: 4001
- Beds available: 15
- Table: Department
- Description: Departments
- Endorsement: Certified
- Workspace: Hospital Visits
- Dataset: Medical Visits
- Data updated: 3/22/2023 12:13
- Contact: Adele Vance



MECHANICS OF DATA REUSE IN **POWER BI**

To understand data reuse in Power BI, we need to grasp the platform's architecture and how data flows through it.

Reusable data assets are **published** and hosted in the Power BI Service and packaged into apps for end users. These users can **access** the data through various contexts, such as the Power BI Mobile app or embedded reports in SharePoint sites.

Embedding reports also allows **restricted** data access within custom data portals. Prioritizing reusable data assets in Power BI adoption aligns with the self-service BI vision. While other components like licensing, data gateways, Azure integration, and governance controls are important, this book focuses on the key elements for advancing data reusability in your organization's journey.

Keep in mind the following benefits when it comes to data reuse:



Answer New Questions



Data as an Asset



Single Version of the Truth



Own Your Analytics



External Collaboration





Analytics Capabilities for Modern Healthcare

Strategy | Development | Governance



At Syntrix, our dedicated team specializes in empowering organizations with strategy, development, and governance support, enabling faster insights and better outcomes. With unwavering commitment to excellence and innovation, we drive positive transformation in healthcare.

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STAY ON THE LEADING EDGE OF POWER BI IN HEALTHCARE

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