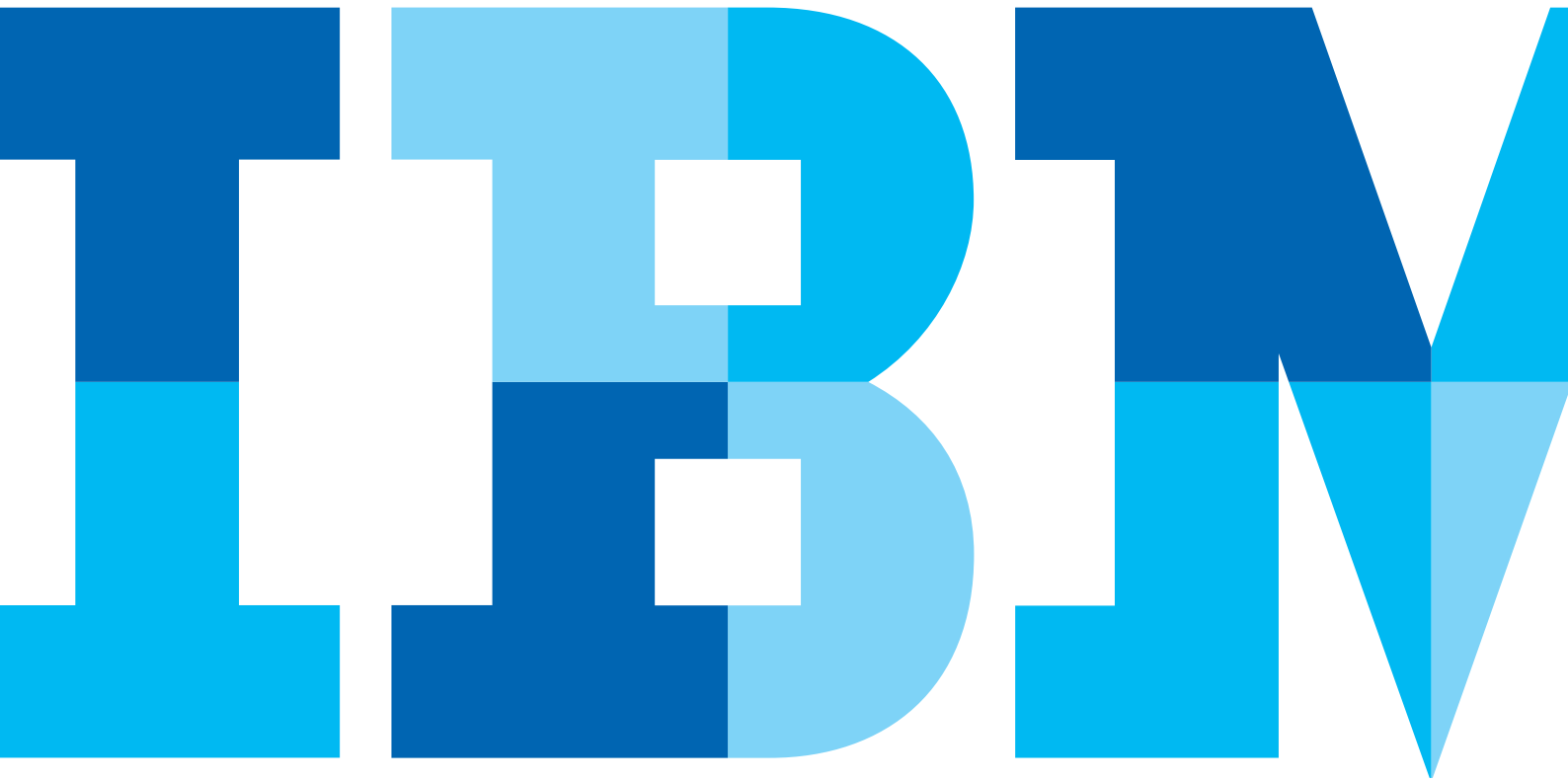


Healthcare Provider Planning Performance Blueprint



Introduction

Healthcare providers today are responding to economic challenges by shoring up internal operations to ensure that the entire organization is running at peak efficiency. Making this determination, however, requires an in-depth understanding of how well the organization is operating relative to its historical trends, its peers and the overall market. To gain this insight, your institution needs to be able to connect operational performance to business drivers.

The *IBM Cognos® Healthcare Provider Planning Performance Blueprint* is a way forward. The *Blueprint* provides the framework for hospitals and health systems to perform driver-based planning, forecasting and financial modeling for their organizations.

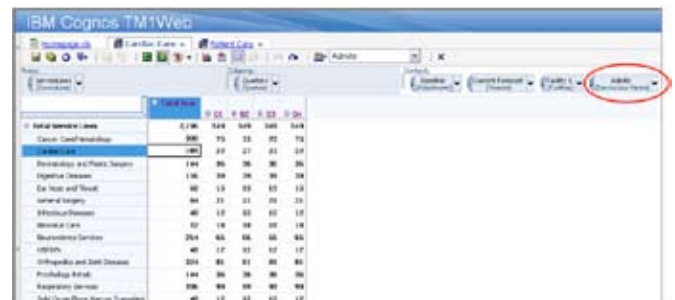
The Healthcare Provider Planning Blueprint is built on the IBM Cognos TM1 and Cognos 8 software platform. It provides an enterprise level performance management framework that healthcare organizations can use to measure and monitor performance and plan for the future. In addition, it provides service-line directors and financial administrators with planning and modeling capabilities that can help them enhance their financial planning processes, optimize business operations and improve profitability.

This application guide walks you through the tabs and other components of the *Healthcare Provider Planning Blueprint*.

Top-down planning

Using the *Healthcare Provider Planning Blueprint*, financial analysts can create models and forecasts based on historical activity and run rates, which they can then link to various drivers for more precise planning.

The *Blueprint* provides directors and managers with the capability to adjust volume drivers at the facility service line level that then subsequently impact volumes at the department level associated with each service line. In this instance, the driver is **Admits**, which is used in a calculation with average length of stay, to determine the number of days associated with each new admit. **Days** is then used to drive revenue and variable expense at the department level.

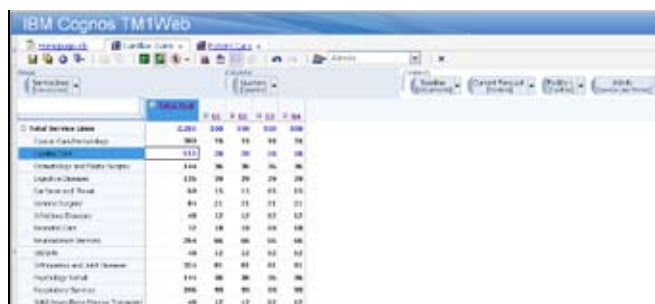


The screenshot shows the IBM Cognos TM1Web interface. A table is displayed with columns for 'Admits' and 'Days', both of which are circled in red. The table lists various service lines and their corresponding values for these two metrics.

Service Line	Admits	Days
Initial Hospital Care	4,106	6,214
Case Care/Rehabilitation	880	79
Admitted Care	880	27
Preventive and Patient Support	1,847	26
Diagnostic Services	146	26
Day Inpatient and Outpatient	80	23
General Surgery	84	23
Medical Services	40	23
Medical Care	27	23
Outpatient Services	204	23
ICU/CCU	40	23
Orthopedic and Bone Disease	204	23
Prosthetic Repair	146	26
Outpatient Services	186	26
Sub-Contractor Services	40	23

In this example, the Cardiology service line manager is projecting a 5 percent increase in the number of Cardiac Care admissions for the year. To make this adjustment, the facilities manager right-clicks the intersection of **Cardiac Care** and **Total Year** and selects **Data Spread** to display the available spread options.

After the change is applied, all cells impacted by the change in volume of projected cardiac admits are highlighted in blue.

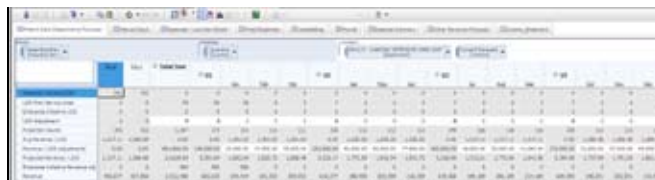


Going back to the service line level, in this particular view, the increase in total admits per quarter for Cardiac Care services is now reflected.

When the manager selects **% Change**, he or she can increase Cardiac Care admits by a fixed percentage for the entire year.

Patient Care Departments Forecast

In addition to the top-down approach discussed so far, the *Blueprint* also has bottom-up capabilities using the IBM Cognos TM1 Contributor interface. This tool provides the ability to deploy an application on the web such that individual departments can plan their annual budget and subsequently submit to the budget director.

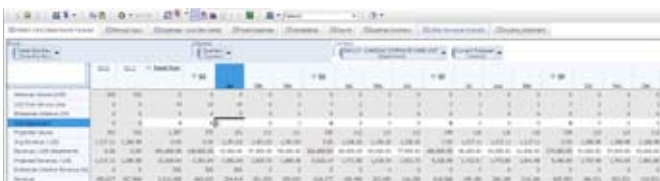


In this example, the revenue forecast for Patient Care Departments is the first tab in the *Blueprint* model. This tab computes revenue by department based on projected volume. Projected volume and revenue is computed using historical admissions by department and payer. The volume can be modified directly in this department tab using the Unit of Service (UOS) Adjustments line.

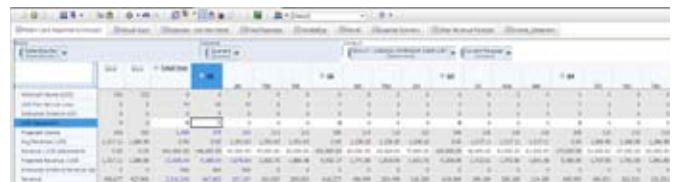
Additionally, a facility manager has the ability to impact UOS by adjusting at the Service Line level; as in the previous example. Changes made at a service line level are allocated back to individual departments based on the level of activity each department contributes to each service line.

Optionally, the departmental contributor has the ability to adjust revenue manually using the Revenue/UOS Adjustments. Items that can be adjusted and calculated by a departmental user are shown in the white or editable areas. As changes are made, they are highlighted in blue, along with any cells affected by the change. The fields highlighted in gray are non-editable and based on historical data.

The following screen capture shows an example of input to the Unit of Service adjustment:

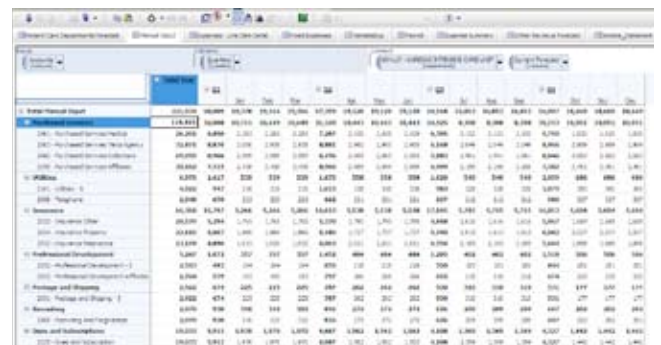


The effect of the UOS adjustment is reflected in blue for both Projected Volumes and Projected Revenues.



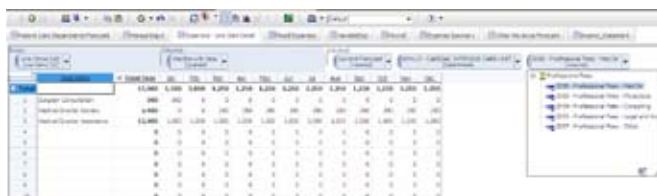
Expense forecasting

Analysts can use the *Blueprint* to create multiple forecasts based on changes in volumes, such as patient days, outpatient visits, surgical procedures performed, down to the detailed procedure code and DRG. In addition, there is capability for manual input by departmental managers and financial analysts for managing expenses not affected by volume.



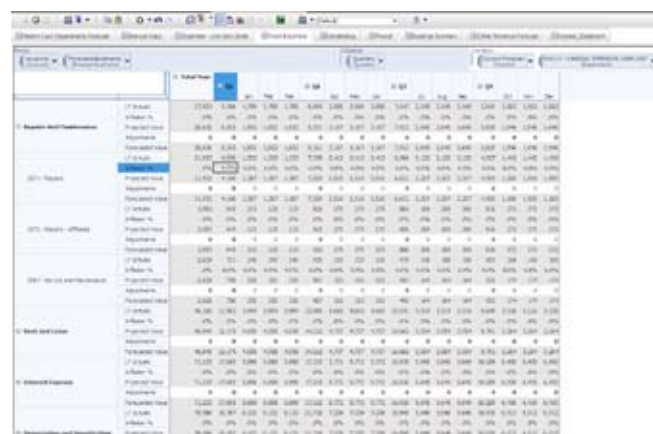
Using Expenses

To override backloaded historical ratios, input at the Line Item Detail level will allow a department manager to contribute a lower level of detail than GL account about certain expense types. Users can enter text values for the forecast and then assign monthly amounts to each of those detailed expenses.

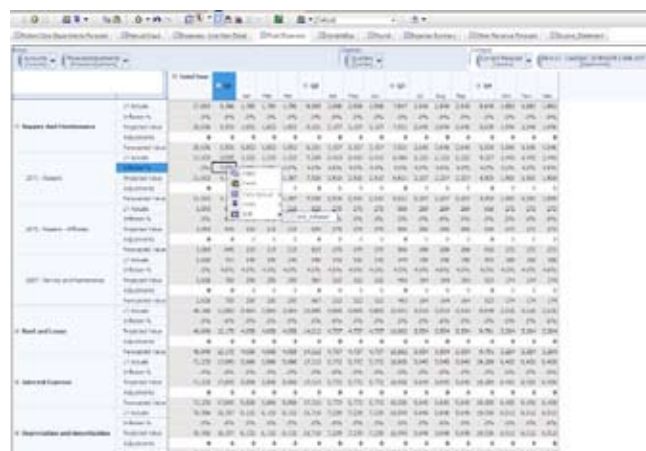


Fixed Expenses

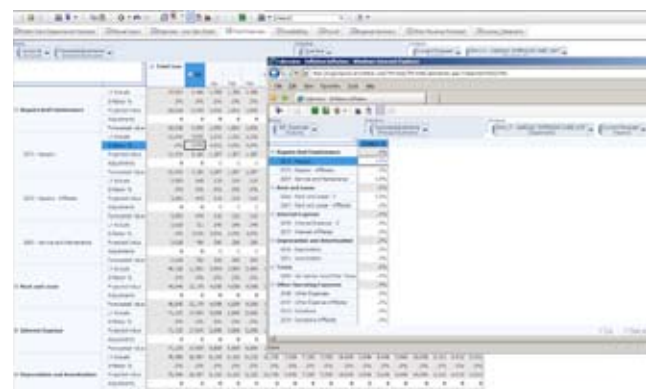
For Fixed Expenses, the model uses prior year actual results as the basis for calculating projected value. Forecasted value is then computed by applying an inflation rate to projected value and adding that result to input entered in the Adjustments line.



The department manager can also adjust the Forecasted Value by right-clicking the inflation rate and selecting the **Drill Inflation** option as appropriate.



The inflation cube view then subsequently opens into a separate browser window where adjustments to the inflation rates applied to each of these accounts can be modified by the analyst.



The model produces a recalculation of the original view to provide the visual cues (highlighted in blue) to identify exactly which cells were impacted by the change.

This screenshot shows a detailed financial model spreadsheet. The 'Payroll' tab is active, displaying various cost categories such as 'Personnel and Salaries', 'Medical Supplies', and 'Medical Expenses'. The spreadsheet includes columns for months and years, with blue highlights indicating cells that have been recalculated or impacted by a change in the model.

Payroll

The Payroll tab shows projected units of service flowing from the Patient Care Departments Forecast tab. In this example of a patient care department, the projected units here represent patient days. Using historical information, the model has automatically projected the number of hours required in this department based on the historical hours per patient day required in Cardiac Intensive Care. Additionally, the model has taken the historical wage per hour for this department and projected Total Wages for this Salary account for the department. The department manager can further refine the numbers by adjusting the hours per unit of service.

This screenshot shows a financial model spreadsheet, likely the 'Payroll' tab, displaying projected units of service and wages. The spreadsheet includes columns for months and years, with blue highlights indicating cells that have been recalculated or impacted by a change in the model.

Variable Expenses

The Variable Expenses tab contains all expense accounts that are affected by the same drivers as revenue. The balances for each account can be changed using the Expense / UOS Adjustment.

This screenshot shows a financial model spreadsheet, likely the 'Variable Expenses' tab, displaying various expense accounts. The spreadsheet includes columns for months and years, with blue highlights indicating cells that have been recalculated or impacted by a change in the model.

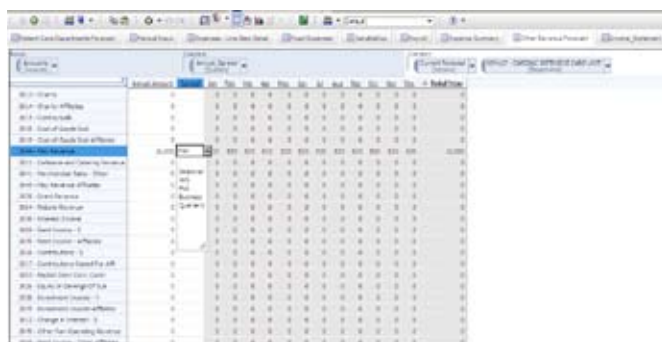
Expense Summary

The Expense Summary tab brings all of the expense budgets together where they can then be compared to prior year actual results. In this example, the model displays a message if an expense exceeds 5 percent over prior year results.

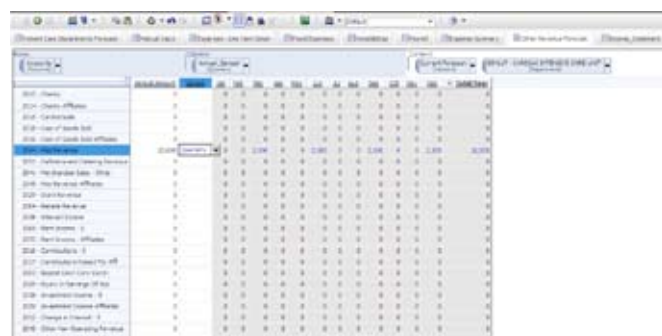
This screenshot shows a financial model spreadsheet, likely the 'Expense Summary' tab, displaying various expense budgets. The spreadsheet includes columns for months and years, with blue highlights indicating cells that have been recalculated or impacted by a change in the model. A warning message is visible, indicating that an expense exceeds 5 percent over prior year results.

Other Revenue Forecast

The Other Revenue Forecast tab is where planning for non-driver based revenue, such as grants and funds that are not impacted by volume can be planned. In this example, we show how you can enter the annual amount of revenue projected and then subsequently select the profile to be used in spreading the data.



In this example, changing the spread from flat to quarterly produces the following result.



Income Statement

The last tab in the model is the Income Statement. Here the blueprint model shows the planned revenues and expenses brought together in a basic Profit and Loss statement format that can be viewed. This tab is also the primary source for the Business Intelligence dashboard shown in this brief.

Category	Q1	Q2	Q3	Q4	YTD
Revenue	1,000,000	1,000,000	1,000,000	1,000,000	4,000,000
Expenses	(500,000)	(500,000)	(500,000)	(500,000)	(2,000,000)
Profit	500,000	500,000	500,000	500,000	2,000,000

Business Intelligence Model

The dashboard of the *Provider Planning Blueprint* presents critical information to executives at a glance so they can focus and quickly drive and devise resolutions for improving efficiency. This report was designed using a tabular approach to represent, highlight and group respective areas of analysis for easy navigation and visibility. These tabs present pertinent trending statistics and data to be used with better managing the planning and forecasting processes. This dashboard view also contains a tab that can launch Microsoft® Excel® views so that users can modify the plan and forecast without having to leave the dashboard.

Service Line Admits Report

The *Provider Planning Blueprint* dashboard by default opens to the Service Line Admits Report view. The graph and crosstab display can show Service Line Admits for both Current Forecast and Annual Plan by time and includes a variance percentage between the current forecast and annual plan difference. This provides an indication of how accurate the plan is performing for each specific service line.



Income Statement tab

The dashboard provides a list of several key reports included in the model. One such report is the Income Statement report, which provides Revenue, Expense and Net Income information at a glance. There are also calculated variances to show how well the Current Forecast is performing compared to the Prior Forecast and Yearly Plan. The report is drillable through to the corresponding detailed information so that the user can view deeper dimensional data in the report.



Labor Expense Breakdown report

The Labor Expenses Breakdown report shows how much is being invested in employees and resources. This sample report shows the variances between the Current Forecast and Yearly Plan, along with the Prior forecast. This identifies how well Labor Expenses are performing to plan. In addition, the report is fully drillable so users can see lower level details on the dimensions.





Conclusion

The *Provider Planning Blueprint* includes these reports plus the accelerator to the TM1 model to speed the deployment of a healthcare planning model that links variable expenses and projected revenues by payer to volume drivers. Healthcare users can model both expense and revenue to reflect the true impact of activities on planned financial goals. You can also review your actual performance to plan, your forecast to plan and changes in associated volumes, such as patient days, outpatient visits or procedures.

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