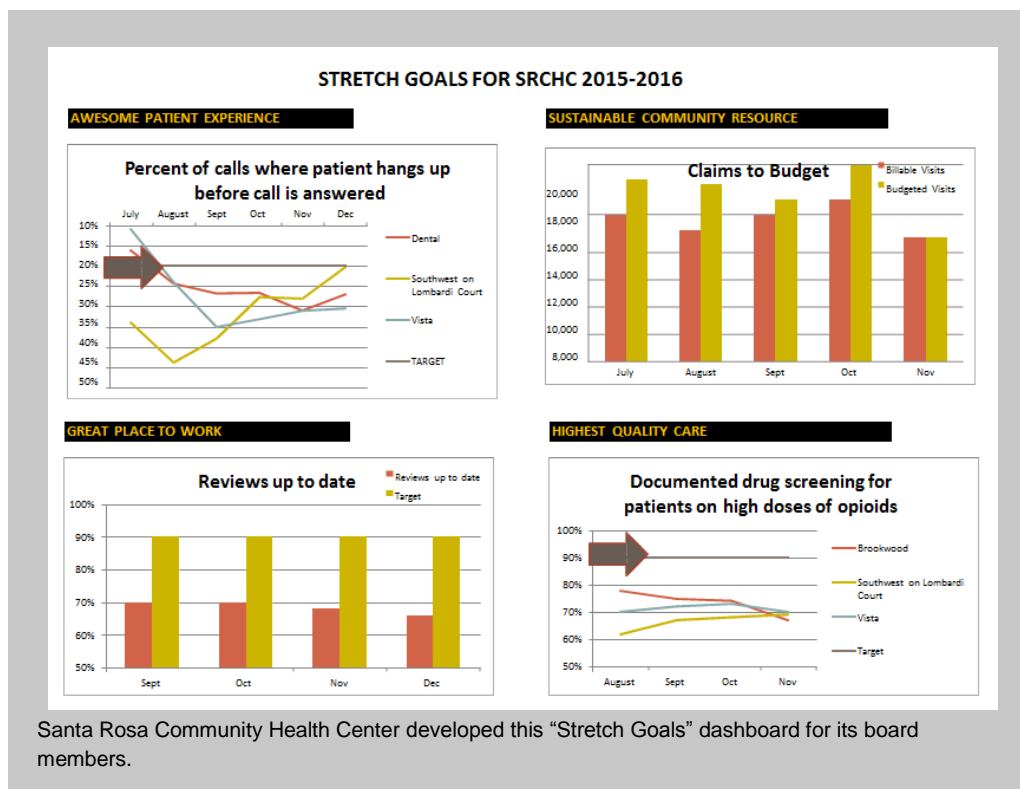


# TURNING DATA INTO INSIGHTS

## *Using Dashboards to Drive Action at All Levels*

More data than ever before are available to health care providers. Yet, data are only helpful if staff is able to interpret and use them. Enter dashboards, and their increasing popularity as a primary method for visualizing data on business operations, clinical care and patient experience. By enabling data-sharing among staff—from frontline to administrative staff and across all departments and sites—in a consistent, visually accessible way, dashboards can guide safety net organizations’ staff and their practices to become more effective.



### SNAP OVERVIEW

SNAP (Safety Net Analytics Program) launched in November 2014 to increase the data analytics capabilities of healthcare safety net organizations to strengthen and improve patient care. The 14-month, cohort-based pilot provided a comprehensive set of supports to 20 organizations including learning sessions (webinars and in-person day-long conferences), individualized coaching, homework and planning tools, networking and financial support. Lessons and resources from SNAP are available at [www.datadrivenculture.org](http://www.datadrivenculture.org).


Whether static, requiring manual updates, or interactive, where staff can see relevant data in real-time, dashboards serve as an important vehicle for bringing relevant data together and visualizing trends. To have a high-quality dashboard requires consistency and accuracy in the data as well as an understanding of what users need, and indicators of movement toward a benchmark. Strong dashboards encourage staff to engage with the data, which enhances data-driven decision making throughout the organization.

Safety Net Analytics Program (SNAP) grantees recognized the power of dashboards for accomplishing their data analytics goals. Many already had some exposure and experience with dashboards prior to joining SNAP, but wanted to refine them or develop new ones to serve emerging needs. The grantees quickly learned, however, that creating a high-quality dashboard is an iterative process, requiring that their organizations:

1. Develop data stakeholder requirements that will support decision-making needs
2. Align requirements with organization strategy and prioritize dashboard development
3. Define the data feeds, analysis routines, and visual displays required for each dashboard
4. Ensure accurate, complete and timely data feeds into the dashboard
5. Select an appropriate tool for dashboard production (start simple and transition to more advanced tools over time)
6. Design visually motivating dashboards that easily display relevant information and incorporate internal goals and external comparisons
7. Gain buy-in and support from staff for accessing data and using it to make decisions
8. Maintain dashboards to reflect up-to-date information
9. Enable self-serve access to dashboards and flexible drill-down to support data mining

SNAP participants had to determine the tool that best fit available resources and funding as well as staff’s skill sets for creating dashboards, taking into consideration how compatible the dashboard tool was with their organizations’ core data systems. Tools used include: Excel and Excel add-ons, SQL Server Analysis Services and Power BI, Tableau, Deep Domain, Azara (DRVS), NextGen, eClinicalWorks (eCW), and i2iTracks.

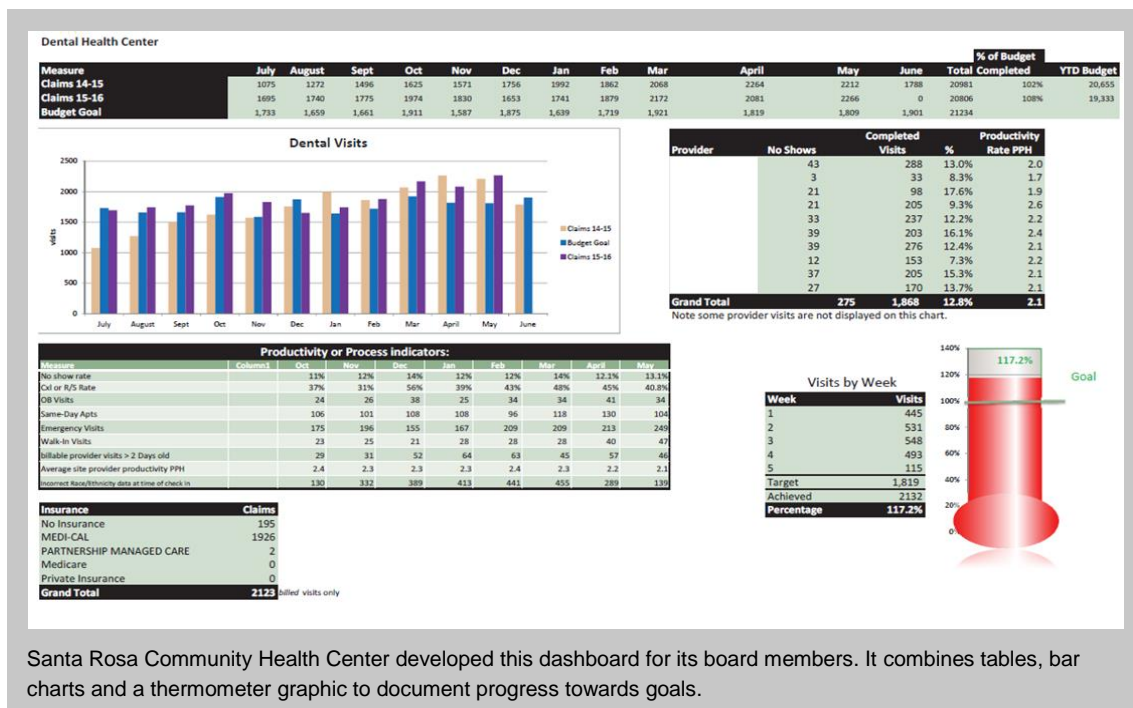
Three SNAP grantees—Asian Health Centers, Santa Rosa Community Health Centers and Santa Cruz Community Health Centers—highlight ways safety net organizations can develop and utilize dashboards as well as common challenges organizations encounter when working on dashboards and how to address them:

Dashboard Goals	Challenges	Organizational Outcomes
<p> <b>ASIAN HEALTH SERVICES</b></p> <ul style="list-style-type: none"> <li>• Support continuous improvement, data-informed decision making and synergy across departments</li> <li>• Create “on demand,” easy-to-use and accessible dashboards with clinical, patient experience, operational and financial data drawn from a centralized data source</li> </ul> <p><b>Dashboard Tool: SQL Server Reporting Services, Deep Domain</b></p>	<p><b>Challenge:</b> Lack of a well-defined data model led to staff requesting new dashboard metrics that were not consistent with other metrics and reports, causing confusion and miscommunication</p> <p><b>Approach for addressing challenge:</b> Making the definitions more explicit helped staff better understand where the existing metrics came from and what factors to consider when adding a new metric</p>	<ul style="list-style-type: none"> <li>• Developed more automated and actionable dashboard reports that could be produced at any time and take into account workflow changes with provider staffing</li> <li>• Improved use of data in daily decision-making, across financial, clinical and operational departments, creating a Triple Aim measurement process</li> </ul>

Dashboard Goals	Challenges	Organizational Outcomes
<p><b>Santa Cruz Community Health Centers</b></p> <ul style="list-style-type: none"> <li>Improve Clinical Quality Scorecard with measures of preventative care, diabetes care, patient empanelment and clinic management</li> <li>Reduce the individual requests for data reports</li> </ul> <p><b>Dashboard Tool: Tableau</b></p>	<p><b>Challenge:</b> In support of their daily tasks, more staff made IT requests to access data than IT had capacity to handle</p> <p><b>Approach for addressing challenge:</b> Having data in such a flexible format allowed individuals to generate dashboard reports of interest to them</p>	<ul style="list-style-type: none"> <li>Initiated work on creating dashboards in which staff can filter data by site, department or provider on a monthly basis, enabling greater self-service analytics</li> <li>Freed up IT and analysts to focus more on ensuring high-quality data and supporting staff in making meaningful use of data for improvements</li> </ul>
<p><b>Santa Rosa Community Health Centers</b></p> <ul style="list-style-type: none"> <li>Improve the quality of data inputs to dashboards so staff view data as a strategic asset and increase their confidence in the quality of reports</li> </ul> <p><b>Dashboard Tools: eCW; BridgetIT, Excel</b></p>	<p><b>Challenge:</b> Low organizational buy-in for dashboards</p> <p><b>Approach for addressing challenge:</b> Using a bottom-up approach, they began using dashboards with provider level data, responding to a request from providers to see their own data</p>	<p>Sparked data analytics capacity improvements in their organization:</p> <ul style="list-style-type: none"> <li>Increased providers' accountability for data</li> <li>Leadership now considers the quality and consistency of the data before making major decisions</li> <li>Build training reports to accompany data reports to document context and decision making that led to each data report</li> </ul>

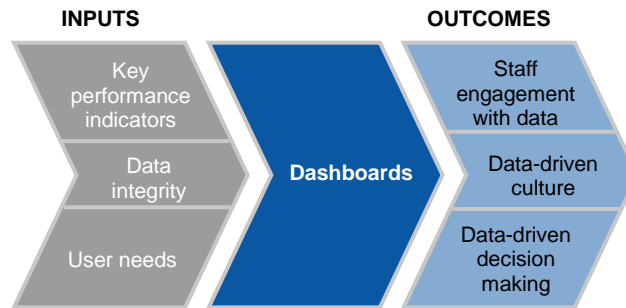
## KEY TAKEAWAYS

- Determine who is involved in making decisions on dashboard development**, including deciding what data, measures, and comparative benchmarks to use, as well as dashboard priorities and roll-out plan. Safety net organizations often have staff with a variety of backgrounds and expectations for data. It is unlikely that everyone's needs and preferences will be met, so it is important for the decision makers to reconcile user needs against organizational priorities to determine how to best prioritize dashboard development.



**Iteratively seek feedback from data stakeholders** as dashboards roll out. Find out if staff is using the dashboards, if they have any questions about the data and what it means, and what is most useful for them. These proactive conversations can provide valuable feedback on dashboard utilization and areas where staff needs additional training. Staff often needs to see the dashboard to identify their questions, including any gaps in their understanding of the data.

### What Goes In & Comes Out of Data Dashboards



**Ensure that the data are defined and tracked in a consistent, accurate, complete and timely way**, and regularly reviewed for quality. While visuals are a key component of dashboards, poor quality data negates a well-designed, visual dashboard.

SNAP was funded by the California Health Care Foundation (CHCF) and implemented by the Center for Care Innovations (CCI). Informing Change, an independent strategic learning and evaluation firm, assessed the program's impact on grantees through their participation in SNAP. For more information on SNAP please contact SA Kushinka at [sa@careinnovations.org](mailto:sa@careinnovations.org) and for more information about the evaluation please contact Sheila Walsh at [swalsh@informingchange.com](mailto:swalsh@informingchange.com).