Building a Management Dashboard App for Local Health Departments

Local Health Department leaders can now access health department data, in easy-to-view colorful graphs, anytime,anywhere, on any device with the new Management Dashboard app.

CHALLENGE

For health directors (or officers or administrators) of a local health department, the number one issue is funding. As local health departments have consistently seen reduced budgets year over year, health directors have been forced to pay more attention to justifying funding. All stakeholders want more and more data to continue local health department support. These stakeholders, be it board of health, county commissioners or grantees, need specifics on various provided services, population demographics, payer source, clinical outcomes and patient wait times; they want various permutations and combinations of reports. Reporting has become a burden and challenge for health departments.

"We had a difficult time determining what was actual revenue by payer source. Reports were all done manually and we had to physically count and add the content from several spread sheets and then piece it all together for annual numbers" said Tommy Jarrell, Health Director, Richmond County Health Department.

To get a simple report, staff had to go into various electronic and paper systems to produce one report. However, manual collection and formatting of data is time-consuming and labor-intensive work. Furthermore, the accuracy of the reports is not always trustworthy, and enormous amounts of time is spent checking and double checking the data.

"The county conducted regular audits and they would need three figures in two hours - are you kidding me? You just can't get it all that easily" said Scott Lenhart, Health Director, Stokes County Health Department. Small to mid size local health departments (LHDs) have the added burdens of shared IT staff; county employees who have a lot on their plate for whom the health department has to fight for their time. Thus, getting reports can be a huge challenge for the health director. Even though large metro health departments have more IT resources, they are also very busy, and one still has to wait to get reports.

BENEFITS OF PATAGONIA HEALTH EHR

► Eliminates tedious manual collection of data

► Improves the accuracy of reports

► Monitors many metrics at once

► Shares data easily across counties

When the state association of local health directors was searching for an EHR solution they did not want just any Meaningful Use certified Electronic Health Record (EHR) system, they wanted an EHR which focused on public health; they wanted an EHR with a full set of (typical) financial and clinical reports. However, that was not enough. In addition to getting typical reports, they also needed an EHR which would provide reports for state (e.g. for debt set off or Medicaid cost settlement), federal (title V and title X) and numerous county reports (e.g. services provided, demographic breakdown of county population served). A dedicated public health EHR system could provide reports which are needed for public health in various combinations, quickly and easily without IT staff doing SQL queries and such magic. Reporting had to become simple and public health focused.

Since public health is going through tremendous change, they wanted an EHR partner who was focused on public health and will continue to evolve to meet ever changing demands of (local, county, state and federal) public health.

SOLUTION

After an extensive search, the state association of local health directors selected Patagonia Health EHR because of its user-friendly apps and widgets. The apps platform makes EHR easy-to-use and easy-to-learn for even less tech savvy staff. In addition to the existing set of comprehensive reports, Patagonia Health built a comprehensive set of county, state and federal reports. These reports can be printed or exported into excel for further manipulation and are all easily accessible without having to wait for the IT staff to run queries.

After one year of working with numerous health directors and seeing their day-to-day operations, Patagonia Health observed that a large number of health directors rely on their staff to produce reports because they are often off-site or in meetings. Often times, staff had difficulty getting time from the shared IT resources to get the needed data. Patagonia Health thought perhaps a new app could improve their productivity and mobility.

BUILDING THE MANAGEMENT DASH-BOARD APP

Dashboards provide a graphical interface between the

"I remember back in Sept 2013 Ashok approached me at the state public health conference in Asheville. He talked about using cloud and mobile technology to build a local health department-specific dashboard. He shared a vision of a dashboard with lots of graphs and charts. All this available either on my smartphone, desktop, or tablet; available anywhere, anytime. He asked for my input; my ideas; what I would like to see and how I thought it should work. It all started back then. I talked to him throughout the development of the dashboard, and lo and behold, here it is! It worked out well."

Scott Lenhat
Stokes County Health Director

viewer and the data. A relatable example is your car's dashboard which lets you know that oil is low or your engine needs checking without ever having to lift the hood. And much like the dashboard of a car, local health department's dashboard summarizes key performance indicators of your health department - without having to manually collect data from multiple sources. Dashboards have to be easy and with a quick glance, one can assess the health of the department and highlight any areas which need looking into.

To make it easy to use, each app must be built around the needs and workflow of each user and for health directors it needs to be convenient. "With the apps platform, customizing and developing the app is easy. We just need to spend time to really understand how they use it" said Ashok Mathur, CEO and co-founder of Patagonia Health. Once the Management Dashboard idea took hold, Patagonia Health collaborated with Richmond and Stokes County Health Departments who were already using Patagonia Health's EHR system. Patagonia Health worked closely with Lenhart and Jarrell to find out what information they would benefit from.

"As our counties start changing and consolidating into regions, and as we develop and become more compartmentalized, the Management Dashboard App will give a snapshot of what each region looks like" says Lenhart. Lenhart uses data to watch trends and comparisons between his department and others similar to Stokes County. He can easily see this data captured in color coded summaries; shown above, the brown bars represent data "in other practices."

Data can be simply aggregated across the various health departments and compared with other similar health departments. With cloud technology, it is easy to aggregate data and compare de-identified data. Sharing and comparing of data (like no-show rates or diabetes) can prompt discussions about sharing of best practices and quality improvement projects. As long as data is in the Patagonia Health system, it can be easily shared.

Other directors, like Tommy Jarrell, like to see clinical information such as appointment no-shows (by programs) and other clinical data, to help improve his internal workflow.

> *"There are reports and data that I need to be able to get out quickly and easily to the board of health or county commissioner - I need to know several things like no-show rates.*
> *I need to be able to show a snap shot view of how much revenue we're bringing in from different types of payers and then export into other reports."*
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> **Tommy Jarrell**
> Richmond County Health Director

"Patagonia Health came to us prior to development to find out what information we would benefit from and they took our recommendations and brought it back and were willing to tweak the plan where necessary. It is no longer what it was when it started out but has evolved based on what we needed and wanted. Patagonia Health involved us from the get go" recalls Jarrell.

BENEFITS

Sure, the reports are good and comprehensive but, more so, the Management Dashboard App provides added control to health department leaders. The Management Dashboard App displays the information pertinent to the individual's needs, whether it's the financial officer, the director of nursing, the billing staff or the health director. Leaders can detect problems and take proactive action before they become major problems. The Management Dashboard App, designed specifically for local health departments, includes relevant financial reports, clinical reports or Meaningful Use reports. Based on user fee back, additional widgets or reports are being added.

The Management Dashboard App helped eliminate the tedious problems of required reporting. Now many metrics can be monitored at once, such as Reports by Programs (Child Health, Family Planning etc.) and Number of Visits by Payer. Health directors can easily share information with county commissioners or boards of health through any device such as a laptop or mobile phone. Grant wri ers have access to graphical data for use in writing pr pos- als. Other benefits include:

- Easy-to-view colorful graphs allow leaders to keep tabs on key performance metrics.

- Graphical reports are available on any device, anytime and anywhere - even via smartphone.

- Accurate data, with trends and built-in alerts, provides opportunity to take proactive action.

- Performance against Meaningful Use objectives can be easily measured.

- Data can be aggregated and de-identified data shared across counties.

- Time and effort in reporting is dramatically minimized.

"Management Dashboard App tracking is really great for new healthcare access points like percentage of people who aer self-pay vs. insurance paid - it's all in the Dashboard. County commissioner's end-of-year report summarizes easily. I trust it much more than the old system."

Scott Lenhat
Stokes County Health Director

About the Management Dashboard App Lenhart said "I wou challenge other health directors to challenge their EHR developers if they have something similar that we have with Patagonia Health!" In fact, Lenhart is scheduled to present this to 10 other counties at his next regional meeting.

PatagoniaHealth

At Patagonia Health, we empower healthcare communities to achieve desired health outcomes with easy-to-learn, innovative technology solutions backed with highly-referenceable customer service. Patagonia Health collaborates with healthcare organizations to improve the well-being of their communities. We serve those who serve others.

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