

Clinical Transformation

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The case for making dashboards; clinical and business; providing real-time and actionable information goes beyond the traditional advantages. Do it right and you get the opportunity to shape the organization from the ground up!!!!

As we know it; Dashboards are intended to improve patient care, quality outcome and the perceived notion of effective use of electronic medical records. In the traditional sense, using these tools provides insight to performance goals and targets in a broader context where organizations are empowering decision making to improve organization performance.

Making dashboards actionable goes beyond automation; in my 22 year of experience it is often comes down to one simple concept, "How Simple Can You Make it?" Can you transform your data in a multi-layer approach in a comprised view to enable timely, accurate visibility of information? Can you empower decision-makers with tools to monitor clinical \ business metrics, using push technologies and identify critical data relationships? And finally, can you present your data to users in a manner that counts? Is the user experience, of viewing information in an easy to understand format, in "real time" or "near real time", interactive sliders, ad hoc reporting (IE: in a chines menu format) alerting and trending patterns relevant to "You" allowing even the least technology savvy to use the dashboard, analyze data and make decisions accordingly?

The philosophy behind actionable dashboards is about a continued improvement; an organization should strive to be an analytics driven organization where dashboards are the tools they use to gain insight, not in a traditional manner to? static or historical data but, to: hidden patterns to drive competitive advantage, gain insight to operations and root causes, identify opportunities to improve; quality of care, compliance and cost reductions.

To drive continued improvement in an actionable manner I recommend you start with evaluating the following four areas in your organization:

- 1) Technology Infrastructure – What technology should you considered; in-house vs. outsourced, big data vs. data marts, how should data flow in the infrastructure to accommodate security, integrity and legal requirements?

2) Data Transformation – understand the raw data and what’s being collected, is the data is? complete and valid, is the measurement is? based on best practice, how decision makers view the level of your transparency, and is information perceived to be user friendly to viewers?

3) Environmental \ Cultural – define users, determine metric accessibility and frequency, develop process and accountability.

4) This is a “hands on” initiative and requires an ongoing participation and commitment of a diverse team (in-house) of visionaries and action takers make sure you got the needed support and team members.

An organization that has an effective actionable dashboard is often in alignment with the organization’s structure; information and actions are personalized to the viewer and his role in the organization. Key components to actionable dashboards are; identifying proactively the existing of a problem\’s or predefined condition\’s, understanding the magnitude of existing and historical context, isolating and determining the root cause to of the problem\’s and pushing notifications affectively to avoided false positive and the “white noise” syndrome.

Common examples of actionable dashboards includes but not limited to:

- Predictive Care of Patient
- Predictive Loss Revenue
- Predictive Length of Stay
- Code Blue and Rapid Response
- Wound Rounding & Hand off Communication
- Patients Referrals & population health

For an actionable dashboard to be effective it has to tell a story to different audiences in three dimensions; past information, current status, and likely future considerations for clinicians. The ability to suggest path of care to clinicians using a dashboard is appealing to many, as it offers quick and easy way to spot and access clinical information that identifies conditions in real time or near real time that assist and advise on a decision for the best possible action to result in the best outcome for the patient.

The predictive approach applied in actionable dashboards is using well vetted algorithms that are risk based to in depth information. The result is a calculation that takes into consideration patient characteristics in order to determine the best outcome offering great deal of potential value to providers and patients.

Shaping the organization from the ground up! Taking such approach can help with efficiently, systematically, and statistically better understanding our patients and their risks. That understanding can help clinicians and providers do their jobs better – improving the allocation of resources, the implementation of best practices, and the focus on the patients who need them the most.

If Actionable Dashboards Is So Helpful, Why Hasn't It Been Utilized More? The answer is simple, much of the data set required for complex algorithms and predictive conditions was unavailable, information was segmented between practices and providers databases. It is only recently that a deeper dive into complex modeling has only begun to be gathered by healthcare organizations.

I still think we have ways to go...now with EHRs and big data just beginning to have enough of the crucial information available to allow for actionable dashboards to take place. As data is continuously gathered, which is more robust, and gathered over longer periods of time, our ability to apply actionable dashboards will continue to increase. This is certainly an area of healthcare improvement that should be worked toward in the present and monitored in the future for its ability to dramatically improve the cost and quality of healthcare.