Real World Examples

Anne Arundel Medical Center

Anne Arundel Medical Center was able to reduce their opioid prescribing by over 60% through a series of interventions that relied heavily on their dashboards.

The organization set up the public goal of achieving a 50% reduction in an 18-month period from the initial announcement. After that first and most broadly sweeping goal, their opioid task force set up the following goals:

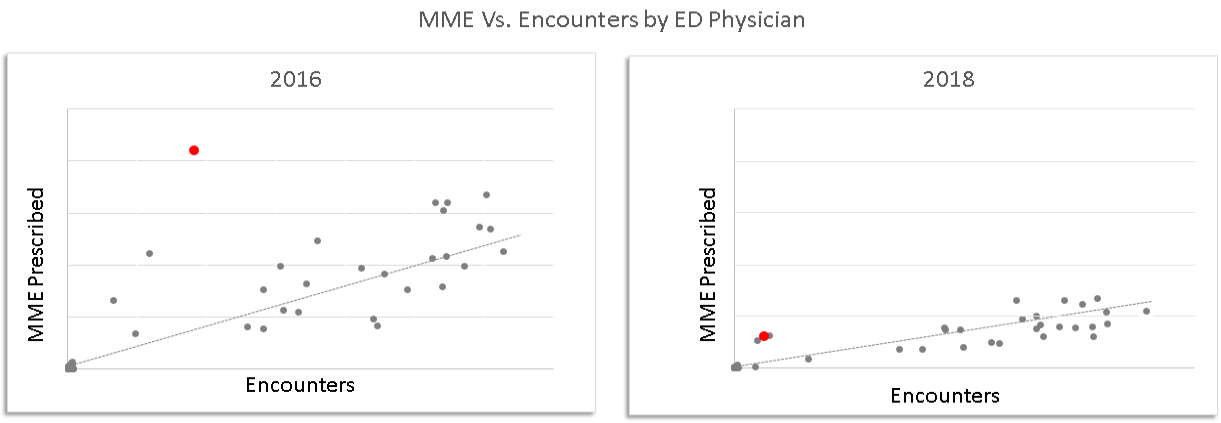
- 50 percent reduction in MME prescribing - publicly announced
- Reduction in prescribing variation - internal only
- Maintain patient satisfaction with pain management - internal only

> "You potentially could get bogged down in the mindset that I just can't even get started until our dashboard is ready. … That didn't match our experience. We brought the task force together and started evolving the analytics as the needs of the task force solidified. … That led to our initial dashboard."
>
> - Dave Lehr, CIO, Anne Arundel
>
> Source: "A Journey to Opioid Prescribing Reduction," CHIME webinar, July 2018

Initially, this organization focused on the Emergency Department by creating a dashboard with just two simple metrics:

- Total MME's prescribed – broken down by provider and for the whole department
- Total MME per encounter for each provider

Using these two simple metrics, the Opioid Task Force was able to prove their performance improvement methodology. In addition to the overall health system goal of a 50 percent reduction in prescribing, the ED set the sub-goal of reducing their variability between prescribers. Below you can see, visually, how this metric evolved over time.



Here, both the slope of the line (Total MME) and the standard deviation from the line were reduced. And in showing the provider represented by the red dot above that he was a significant outlier from his peers, the provider quickly learned that his practices were not normal and adjusted. This visual management technique is what the dashboard is intended to facilitate: critical conversation supported by data.

This also highlights the importance of the Stewardship Committee's leadership of the effort. The data alone will not drive change. Only leaders within the committee can make that happen, using the data as a tool.

Over a short period of time (less than three months), the Anne Arundel opioid dashboard grew from those humble beginnings to a full enterprise-wide view of all opioid prescribing, as led by the committee. The top priority metrics that they included were as follows:

- Patient/Community Outcomes
    - Patient satisfaction with pain management in the ED
    - Chronic pain prescribing vs. prescribing for opioid naïve patients
    - Calls for second prescriptions to measure the effectiveness of EPCS
    - Pills prescribed but not used, reported by patient's patient portal and follow-up visits
    - Also captured the reason for taking (many took pills without experiencing pain)
    - County data on overdoses in the community

- Prescribing volume
    - Total MME, median MME per encounter, number of encounters with opioid prescriptions, number of patients with prescriptions
    - All broken down by service line, prescriber, department, patient geography, etc.

- Duration of use
    - Median pills/MME per patient, pills/MME per order

- Inter-departmental prescribing variability
- Outliers per procedure (which OB gives the most pills for a C-Section, for instance)
- Protocol compliance (percentage of procedures with a departmentally established pain protocol that deviate from the protocol)
- MME within 24 hours of discharge as a predictor of how much the patient needs after discharge.

It's also worth noting that in the process of setting up the dashboard, the Anne Arundel team began putting the framework in place to toggle the dashboard from opioids to benzodiazepines. This will begin driving new initiatives at their organization using the same framework.

The Anne Arundel team started their work earlier than many other organizations, so most of their dashboard tools were built custom in-house. Their team cautions, though, that since they did their work, a lot of out-of-the-box functionality has been released by their vendors. They believe that if they began the work today, they could accelerate their work with a simple call to their EMR support representatives who could help them configure pre-released tools.

Keys to Success

- **Develop the dashboard in partnership** with initiative leaders in the Opioid Steering Committee or Opioid Task Force to incorporate their perspectives and ensure buy-in
- **Set goals** and let them determine the design and functionality of the dashboard
- **Begin modestly with a few metrics** to prove the performance improvement methodology
- Ensure the dashboard provides **clear and unrefutably data** to support change management
- **Build off your successes** to include more metrics and initiatives
- Using **out-of-the-box solutions may prove to be faster** than building custom in-house tools

Real World Examples

Geisinger

Geisinger Health System is another example that paralleled the insights offered by Anne Arundel. Their system also began with the publicly stated goal of a 50 percent reduction in prescribing. They, similarly, achieved a reduction of over 65 percent as of the time of this publication.

Their journey had many similarities to the previous case study, but they added that there were some key factors they measured that weren't included in Anne Arundel's dashboard.

Some of those key metrics included:

- Patient education specific to pain control
- Alternatives to opioids such as NSAIDS, APAP, PT, yoga, etc.
- Patients prescribed both an opioid and a benzodiazepine
- Patients with a toxicity screen in the last year

> "Although the dashboard may be unique to Geisinger, we believe other health systems and hospitals can generate similar reports on opioid prescribing through their electronic health records or clinical order entry systems. The initiatives rolled out by Geisinger are broadly applicable to healthcare systems across the United States, and we encourage others to apply these strategies in their organizations."
>
> John Kravitz, Corporate CIO, Geisinger, in testimony to the Health Subcommittee of the U.S. House Energy and Commerce Committee, April 12, 2018

Other Notable Examples

All of the organizations interviewed had very similar processes that led to their organizational opioid dashboards. In addition to that process, though, here are some additional metrics in the menu that your Opioid Committee may want to consider:

- Jefferson Health
  - Number of prescriptions with high quantities of MME
  - Number of prescriptions with long durations
  - Number of patients with more than two opioid prescriptions in 30 days
- Metro Health
  - Deaths avoided with naloxone
- Johns Hopkins
  - Patients who are co-prescribed naloxone

Measuring Success

Grading the success of a dashboard can be tricky. In many cases, the operational leaders may grade the success of a dashboard by their inability to ask questions that can't be answered with the data. However, we encourage you to avoid the trap of equating these two things.

> **Key Insight:** "I can think of more things to measure" ≠ "our dashboards aren't successful."

Instead, we encourage you to ask the initiative leaders within your committee to evaluate your success on the following dimensions:

- Are there things we initially identified as part of our goals yet we're unable to tell if we moved in the right or wrong direction?
- Is the data quality sufficient for me to discuss next steps with members of my team?
    - If no, then who in my department can work with the analyst to close data integrity gaps?

If you communicate this framework for measuring the success of your dashboard early in the discussions with your committee, you'll be setting the right expectation with that group. There will always be more questions, but the work doesn't have to wait to begin.

Patient Considerations

One consideration with measuring all these things and successfully getting buy-in across your whole medical community is that some people may feel a loss of autonomy and potentially that they are being unnecessarily surveilled. In some cases, prescribers in the health systems that we interviewed even went so far as to tell the patients that they couldn't prescribe pain medications because "they are watching everything we do."

These cases are the exception rather than the rule, however. Most prescribers welcomed having a standard prescribing protocol that their peers agreed with that they could refer to. But to get out in front of any unproductive dialog with patients, many of the health systems we interviewed coupled this work with strong patient and community outreach and messaging. This will be addressed in a subsequent chapter of this playbook.

Key Takeaways

- Don't allow the dashboard to become a prerequisite to the formation of your Opioid Stewardship Committee
- First, lead the Stewardship Committee in the creation of simple, measurable goals
- Start small and build basic functionality to facilitate the measurement of those goals
- Validate the data with your operational stakeholders. No report goes live without data validation from the clinical departments
- Iterate and evolve your dashboards over time. Your understanding will evolve and so should your tools

Resources

In addition, here are some links to resources from our community that may be helpful along your journey.

"Assessment of Opioid prescribing practices before and after implementation of a health system intervention to reduce opioid overprescribing." Meisenberg BR, Grover J, Campbell, C. JAMA Netw Open. 2018; 915): e182908

"How Geisinger Health System reduced opioid prescriptions," Harvard Business Review, Nov. 19, 2018