The Steady Climb: Uplifting Static Reports to Data Analytics

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BACKGROUND

Diabetes Self-Management Education (DSME) program is based on the National Standards for DSME. Provider submits a referral order and patient is scheduled for a DSME visit, wherein a diabetes educator completes a focused assessment and recommends patient for a comprehensive education via group or 1:1 classes. Additional referrals to community programs, nutritional management support, and social support services may also be scheduled. Duration of DSME enrollment aligns with Medicare/Medicare standard.

WIN for Diabetes (Washington Heights/Inwood Network) was established in 2012 between the hospital’s Ambulatory Care Network partnering with the local communities to serve adult patients with poorly managed diabetes, as well as offering support to their caregivers. WIN enrollment is 12 months.

Care Managers, of the Care Management team (CM), monitor patients with multiple ED/inpatient visits and works alongside DSME and WIN program leads to assess and assist diabetic patients with frequent, recurring hospital visits. Duration of CM monitoring is determined by CM team.

OBJECTIVES

- program efficacy
- appropriate enrollment
- identify high-risk patients
- prompt intervention
- identify program, clinic, provider trends
- allocate resources & alleviate bottlenecks
- maintain project records
- continuous improvement & data validation

RESULTS

METHODS

- data visualization software – Tableau
  - measured approach in using graphical features
  - robust product, allowing both high-level & detailed views
  - daily data refresh; data downloads & printing available

- project documentation - Microsoft SharePoint
  - access to specifications (lists data elements & criteria)
  - status feed of expected deliverable against timeline
  - delineates process for requesting changes and support

- iterative product development
  - focused working sessions
  - versions released after each phased set of updates/edits
  - process for vetting and reviewing changes prior to release

DISCUSSION

Outcomes
- improved multidisciplinary collaboration
- improved program & patient assessment
- informs and accounts for other initiatives and use-cases

Challenges & Mitigation
- scope creep – commit to project scope; phased releases
- sponsorship – Steering/Practice committee partnerships
- resource constraints – process status transparency

Caveats
- graphical data must still be validated at a granular level
- automated process for alerting on data integrity issues
- implement evidence-based principles
- muted colors, reserve high-alert colors
- conserve white space, minimize cognitive overload
- design flow based on data priorities & analytical needs
- data capture mirrors actual user & system workflows

CONCLUSION

Utilize best-practice principles when uplifting raw data to visualized solutions. Ensure underlying data is valid and stable, and promote informed decision-making through shared governance. Data visualization software can reveal critical insights, enabling staff to proactively intervene. As information gatekeepers we have a responsibility to communicate accurate data and consume information with caution.