Barriers and Facilitators to the Effective Use of EHR:
A case study of strategies that facilitate providers closing their notes

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Acknowledgements

GE-National Medical Foundation

Jackson-Hinds Comprehensive Health Center leadership, providers, and staff

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Background

- Significant government support
- Mandates & Funding
- Evidence of Benefits
- Problem
  - Some physicians and providers have difficulty closing notes within 48-hour period:
  - Negatively impacts patient care
    - Increased likelihood of medical error if record incomplete before next patient visit and increases risk of malpractice
  - Limits organizational ability to meet government mandates
    - Meaningful use, UDS
  - Negates the cost effectiveness of point-of-care use of EHR
    - Backs up billing
    - Limits sustainability of organizational products: staff benefits, retirement fund, raises
- Objectives
  - Determine barriers and facilitators to effectively closing notes in the EHR by providers
  - Implement a solution using the Deming Model of Quality Improvement
Methodology: Plan

PDSA: Determine performance measures

• Research Design
  • Qualitative prospective case study of electronic health records users’ barrier and facilitator to effective use of the eClinical as measured by the ability to close their clinical notes

• Data Collected
  • Conducted 9 focused, semi-structured interviews
  • Providers: physicians and nurse practitioners
  • Specialties: family medicine, adult medicine, pediatrics, and obstetrics/gynecology
  • Locations: 3 clinic sites at Jackson-Hinds Comprehensive Health Center in Jackson, Mississippi
Preliminary Assessment

Barriers

• No administrative time
  • 6-12hrs/wk from home

• Patient flow
  • 2x-3x booked appts.
  • Walk-in hours

• Patient loads over 20

• Data entry requirements
Preliminary Assessment

Facilitators

- Effective use of tools
  - Templates
  - Order-sets
  - Tablets
- Accountability to patients
- Patient loads under 20
- Professionalism
Methodology: Do

PDSA: Implement change on a small scale

- Selected a measurable facilitator as a solution and accessed its effectiveness
  - 1 additional hour of administrative time per day for 3 days
  - 1 provider

- Expected Outcome
  - After intervention is implemented on a small scale, productivity—as measured by the ability to close notes—is expected to increase by at least 5%.
Results: Study

PDSA: Test and record changes to learn about challenges, opportunities, and achievements

There was 11.9% change in productivity as measured by notes closed during the three day study period

Discussion: Study

PDSA: Create structural change objectives to make adjustments to the original plan

• Day 1: appointments were rescheduled to allow for additional hour for administrative time BUT patient flow remained high not allowing the time to be used for administrative purposes
• Day 2: patient flow was addressed; no note were closed
• Day 3: 5 patients present; 5 notes closed
Recommendations: Act

• **PDSA**: Implement structural change and standardize policies and procedures to support broad, systemic improvement

• Address patient flow issues
  - **Scheduling**
  - Hire more staff
  - Train ancillary staff to do more data entry

• EHR Training
  - Provide quarterly and new provider **training**
  - Encourage peer-to-peer training

• Administrative Time
  - Provide 4 hrs/wk of addition time for **patient loads** greater than 20

• Accountability
  - Provider **incentives** for closing >90% notes
  - Provider penalty for not closing >50% notes
Conclusion

• Potential solutions were generated by the users of the Electronic Health Record
• Clinical leadership can make an informed decision about the most effective approach to increasing productivity as measured by notes closed from providers prospective.
• Addition administrative time at the end of a work day produced no change in productivity as measured by notes closed.
• Consider repeating the study with provides that typically take notes home
• Consider addressing patient flow as an alternative PDSA