

Barriers and Facilitators to the Effective Use of EHR:

A case study of strategies that facilitate providers closing their notes

Anita Pierre-Antoine

Northwestern University Feinberg School of Medicine
Jackson-Hinds Comprehensive Health Center
Jackson, Mississippi



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Luretta Martin
Site Mentor

Jasmine Chapman DDS
CEO, Site Supervisor

Thais B. Tonore MD
UMC Faculty Advisor



Background

- Significant government support
- Mandates & Funding
- Evidence of Benefits
- Problem
 - Some physicians and providers have **difficulty closing notes** within 48hour 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



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Facilitators

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

Methodology: Do

PD SA: 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 reschedule 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