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Optimizing the Impact of Quality Healthcare Improvements within a Federally Qualified Health Clinic (FQHC)

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OPTIMIZING THE IMPACT OF QUALITY HEALTHCARE IMPROVEMENTS WITHIN A FEDERALLY QUALIFIED HEALTH CLINIC (FQHC)

by

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ABSTRACT

This doctoral project's purpose was geared toward strengthening quality healthcare outcomes documentation by constructing an updated policy and procedure manual specific to quality measures identified above, identifying attitudes and barriers to documenting, and assessing administration willingness to change. The project included a retrospective chart review of three populations and seven healthcare topics. Each diagnosis was researched utilizing specific ICD-10 (see Appendix A). A focus group/Pre-Implementation Questionnaire was administered to a panel of experts consisting of three nurse practitioners with one to nine years of experience employed at the FQHC. Afterward, a focus group was held to discuss barriers and attitudes to current EHR and the current manual. Lastly, eight administrators were given an updated manual and polled online questionnaires to assess the willingness to change and consideration for the adoption of updated executive summaries and policies and procedures. The focus group/administrators' total sample size was 11.

The project findings further strengthened the hypothesis of a formatted policy procedure manual will boost incentivized revenue. Guidelines outlined by the Health Resources and Services Administration were utilized for the development of the manual. The manual aligns with the theoretical evidence and may benefit other nurse practitioners and healthcare professionals for implementation.

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DEDICATION

We, Felicia and LaDonna, would like to dedicate our DNP project to God, for placing amazing people in our lives that have allowed us to achieve my dreams. To our husbands, Terry and Scott Sr. To our children, Travis, Jasmine, Aarin, Terrell, Javaris, Chelsea, and Scott Jr. words cannot express our gratitude for your love, support, and understanding over these past few years. Thank you for tolerating our many moods, missed activities, and tears. Thank you to Sarah Jo, and Glynn Sr. for always believing in us and praying for us from the beginning. To all of our friends, family, and coworkers (Lenora, and Savanna) who have supported and helped us along this journey, this is for you!

I, LaShundra, would first like to dedicate this project back to God for without him none of this work would be possible. Secondly, I dedicate this work to my beautiful mother Shirlene, and my deceased father, Ezell. Dad, although you are not here with me physically, I know that you are proud. Mother, for your encouraging words and love that you have poured into me throughout every endeavor I have sought out to do in life I cannot thank you enough! Without you both, there would be no me. Thank you for teaching me about God, whom with all things are made possible. Thank you for instilling in me the drive and ambition to achieve all my heart's desires. To my sunshine on a cloudy day, Chandler, kid this is for you! This is to show you that with God, hard work, persistence, and dedication you can do anything! You can achieve anything! You can be anything, son! Thank you for being so understanding during the countless days and nights when I said, “mommy has to do homework”. For the times that I mentally tuned you out when you were talking, because my focus was on this project, I thank you for your

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LIST OF ABBREVIATIONS

ACA	Affordable Care Act
ACCN	The American Association of Colleges of Nursing
ACE	Angiotensin-Converting Enzyme
ACOG	The American College of Obstetricians and Gynecologists
ACS	The American Cancer Society
ANA	American Nurses Association
ARBs	Angiotensin Receptor Blocker
BMI	Body Mass Index
BRCA-1	Breast Cancer Antigen One
BRCA-2	Breast Cancer Antigen Two
CEO	Chief Executive Office
CDC	The Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CIN	Cervical Intraepithelial Neoplasia
CCD	Calcium Channel Blockers
CKD	Chronic Kidney Disease
CVD	Chronic Vascular Disease
DNP	Doctor of Nursing Practice
DTAP	Diphtheria, Tetanus, and Whooping Cough, (Pertussis)
EHR	Electronic Health Record
FQHC	Federally Qualified Health Center
FDA	The Food and Drug Administration

Hep A	Hepatitis A
HF	Heart Failure
HIB	Hemophilus Influenzae Type B
HIPPA	Health Insurance Portability and Accountability Act
HIV	Human Immunodeficiency Virus
HSIL	High Grade Squamous Intraepithelial Lesion
HPV	Human Papillomavirus
HTN	Hypertension
HRSA	Health Resources and Services Administration
IRB	Institutional Review Board
JNC-8	Joint National Committee-8
MMG	Mammogram
mmHG	Milimeter of Mercury
MMR	Measle, Mump, and Rubella
MSDH	Mississippi State Department of Health
PHQ-9	Patient Health Questionnaire-9
RCR	Retrospective Chart Review
STI	Sexually Transmitted Infections
UDS	Uniform Data Set
U.S.	United States
USM	The University of Southern Mississippi
USPSTF	United States Preventive Service Task Force

VFC	Vaccine for Children Program
VHA	Veteran Health Administration

CHAPTER I - INTRODUCTION

The healthcare sector is a complex industry that requires rules and regulations to enhance approaches used to monitor and evaluate operations' effectiveness (Randhawa et al., 2019). Quality healthcare outcomes and patient care are essential to the healthcare industry, improve the desired results, reduce complications, and promote care in the underserved and underinsured population. However, providing patients the optimal healthcare experience is not always achievable due to financial barriers and healthcare policies and procedures not being implemented effectively.

Both state and national policies and procedures must be well-develop and well-articulated; to enhance healthcare facilities' daily operations. Such policies and procedures warrant the quality of care delivered in a Federally Qualified Health Center (FQHC) and aligned with operation standards to improve the service experience and maintain patient confidentiality (Rodis et al., 2019). Being the healthcare industry contains essential and confidential information about patients, policy, and procedure manual related explicitly to healthcare documentation is crucial. A policy and procedure manual should include evaluating the documents regularly to warrant confidential information is protected and simultaneously enhancing practice by upholding safety in the workplace and secure delivery of quality, affordable, and safe care in Federally Qualified Health Centers.

Description of the Problem and PICO Question

Policies and procedures are developed using evidence-based research to address the patients' needs and enhance system efficiency to ensure patient safety and improve healthcare outcomes (Sachdeva et al., 2017). Considering quality improvement for

patient care, healthcare policies, and procedures include provisions to achieve quality healthcare to enhance efficiency, effectiveness, and safety in healthcare settings. Developing and implementing standard policies to support electronic health record data entries add efforts to provide quality care to the patients in rural areas (Volk et al., 2020). The FQHC provides quality and cost-effective care within a sustained healthcare delivery system. The research sought to answer the following question: in FQHC facilities with Adult Medicine, Gynecologic, Pediatric (P), what is the acceptance or appropriateness for the practice of the developed written population-focused policy and procedures manual of developing a written policy and procedures manual with guidelines (I) compared with current standard procedures (C) to identify evidence-based practice in clinical practice with documentation of healthcare outcomes (O)?

Background

Federally Qualified Health Centers promote health care by developing initiatives to encourage health and well-being. FQHC facilities also ensure that communities have access to safe, quality, and cost-effective healthcare. Federal policies have been introduced to make specific national centers partner with government initiatives and programs to implement processes by promoting change in healthcare systems for the patients and the staff. For instance, FQHC facilities are supported by the Affordable Care Act (ACA) provisions, which ensures shared responsibilities among the healthcare providers in healthcare centers to enhance access and affordability of care to all the population (Volk et al., 2020).

Policies influence practice to enhance access to care for all patients by committing and advocating for patients to promote positive outcomes. The procedures established

within the guidelines allow healthcare providers to intervene on behalf of patients by ensuring that quality care is available, safe, appropriate, best practices, and is cost-effective. The development of policies, especially in Federally Qualified Healthcare Centers, maintains provisions for equitable and affordable care to optimize culturally diverse patient health care experiences.

The optimization of care is achieved by promoting research to provide evidence-based care. Research ensures that healthcare initiatives focus on increasing awareness of medical issues among adults, women, pediatrics, and vulnerable populations (Equils et al., 2018). Federal health care programs such as Medicare, Medicaid, the Children's Health Insurance Program (CHIP), and the Veterans Health Administration (VHA) program ensure patients from cultural and socioeconomic diverse communities have access and receive optimal care.

Significance

The introduction of the Affordable Care Act provided that every patient has access to healthcare irrespective of their status, region, or ability to pay. Quality improvement in health care has been directly related to healthcare services and patient satisfaction. Patient care provisions are precepts set in the policy and carried out in documentation systems. Quality improvement promoting evidence-based guidelines enhances clinical outcomes measures within the healthcare organization. Achieving positive outcomes is an essential element for the healthcare organization. Policy and Procedure aligned with an improved documentation system maximize provisions to healthcare.

Documentation systems are relevant to areas of treatment. Electronic Health Record (EHR) systems should be remotely accessible, updatable, and user friendly to enhance efficiency in the organization. Staff should be aware of the system and how it works, which is crucial to improving operations quality. The policies and procedures should focus on the patients by matching the patients' needs with expected outcomes. Patient-focused care enables procedures to enhance patient safety, support, and use of evidence-based research to complete the set goals (Equils et al., 2018). Documentation is crucial to explain how the organization system and staff are working towards improving the quality of services offered. Information should be well stored for easier retrieval when required to be used for comparison and monitoring to know where improvement happened, where development is needed, and the progress of both the organizations and patients.

FQHC facilities are eligible healthcare organizations with documentation systems governed by rules and regulations. These centers have standard policies that have efficient documentation systems such as electronic health records to enhance the generation of reports (Sachdeva et al., 2017). Governing policies and procedures associated with the documentation process guarantees that healthcare professionals comply and solve electronic health records issues. Quality patient care is the optimal goal of healthcare facilities, so staff should comply with procedures and guidelines to strengthen the use of documentation to provide quality services and care to patients.

Purpose Statement

Policy and procedure manuals are used to evaluate standards of practices and operations and ensure the quality of health care aligns and meets its goals. Quality health

care is optimized by providing evidence-based guidelines. Periodic revisions to guidelines influence providers' decision making in evidence-based care. Further, the policies and procedures guide the staff in daily activities while simultaneously achieving desired outcomes. While compliance with guidelines is a desired expectation for healthcare policy and procedural manuals, including those related to patient documents, many FQHC facilities methods for collecting and storing patient records are non-existing. An FQHC facility continues to collect a percentage of data manually. Manual data collection is elicited by high cost or lack of knowledge of current electronic health records systems. Not having adequate systems with readily accessible patient records may increase medical errors and faults and delay treatment for patients, which can be problematic for FQHC facilities.

Specific Project Aims

Federally Qualified Health Center's policy manuals measure operational completion, written reports, and comprehensive records to clearly show how functions are carried out in facilities to improve care quality among the populations (Randhawa et al., 2019). Therefore, a practical application of policies enables the organization to control internal operations and functions from administration to other staff. The Federally Qualified Health Center ensures a working documentation system is guided by policies and procedures to ensure the healthcare center and the staff have data-driven insights to provide improved care, resulting in positive outcomes (Sachdeva et al., 2017). The project intended to design and implement standard policies and procedures to focus on improving healthcare for the rural population in the Federally Qualified Health Center.

Research Aims

The research aims for this evidenced-based clinical study were:

1. To identify the need for updated policies and procedures in an FQHC.
2. To identify an experienced healthcare provider's attitude regarding the existing EHR systems and patient data entry.
3. To identify any barriers impairing significant patient data entry and retrieval from EHR systems.
4. To construct evidence-based guidelines, policies, and procedures for the identification of quality measures.

Theoretical Framework

Healthcare is a complex industry that requires influential leaders who are qualified, experienced, and skilled. Influential leaders must be able to adapt to positive strategies in order to influence and inspire employees. The transformational leadership theory focuses on ethics and standards, providing a unique ability to motivate staff to achieve the set goals (Jung et al., 2017). Developing policies and procedures on adequate documentation reduce failure and redundancy by improving healthcare. Enabling staff members to agree and understand what is expected to provide patients with safe and quality healthcare. Having a well-developed system governed by rules and regulations enhances the organization's improvement regarding quality measured patient-centered outcomes. Hence, every activity and function is completed to increase efficiency to improve the value of services and care given to patients. Transformational operations guide workers' actions in an FQHC by working together towards optimizing the impacts and improvements of services offered in the population in rural areas. Developing

policies and procedures also establishes a healthy workplace culture and have positive outcomes within an FQHC (Jung et al., 2017). Transformational operations involve a visionary approach to solving problems faced to improve and sustain patients' outcomes while reducing care costs and meeting workers' needs.

Transformational leadership is a relevant factor for good quality integrated care. The integrated approach of care is patient-centered and comprehensive and can enhance patients diagnosed with depression. Integration has a lasting positive impact on the FQHCs model. The FQHC model approach includes self-examination and care coordination, resulting in positive outcomes and patient satisfaction (Simas et al., 2018). The integrated approach also involves attempts to partially or thoroughly include all healthcare (Bruce & Sirey, 2018). Therefore, advocating for higher-quality knowledge about leadership focused on implementing the integrated-care practice is essential.

Needs Assessment

FQHC facilities should emphasize the development and implementation of EHR to ensure that adequate and efficient care is provided to all individuals. Family Health Center in Mississippi is one facility that serves different communities and provides care for indigent, underserved, uninsured, children, and adults (Rodis et al., 2019). FQHCs provide diverse people services, ranging from pediatric medical services to patient care for adults in rural areas (Rodis et al., 2019). Physical data retrieved from the Uniform Data System (UDS) tracking system related to adequate documentation of quality measures conducted in Mississippi FQHC with 1260 patients with hypertension, ages 19 years and older revealed that inadequate documentation and deficiencies in data retrieval of adults, women, and pediatrics adversely affect the financial conditions of healthcare

facilities (HRSA, 2018). Missed opportunities in electronically capturing data resulted in only receiving a payout incentive fee of $80,000 out of a potential $600,000 reimbursement. Consequently, incorporating a policy and procedure manual would help lessen the chance of missed data retrieval and missed allocation of funding for missed quality measures.

Implementing policies and procedures to enhance uniform documentation promotes optimal data retrieval and quality healthcare practices by influencing efficient healthcare outcomes in rural areas. Data was collected from patients who receive care at an FQHC located in a county in southeastern Mississippi. FQHC was selected because many patients receive healthcare services and treatment daily; however, the problem is that the present computer system has multiple templates designed with identical formats for documenting outcome measures. Healthcare providers within each department failed to document within the same template, which yielded a reduction in captured data. Incorporating a policy and procedure manual detailing updated evidenced-based recommendations optimizes data capturing by providing a unified documentation format. A review of the quality measure outcome reports within FQHC indicated a reduced score of less than 25% of hypertension, asthma, depression, childhood obesity, immunization, pap smears, and mammograms reporting. The FQHC provides healthcare to more than 13,062 patients, including 5887 pediatric patients and 1260 adult patients with hypertension, of which only 693 are documented as managed. The FQHC also serves 3,031 patients with depression, of which only two have identifying treatment plans. Currently, 2,000 women, ages 21 years and older who receive mammograms and pap

smears from both are manually retrieved. Pap smears performed on women under the age of 23 are not currently tracked by the data system.

Data is also retrieved manually from all pediatric patients under the age of 18. Over half of the pediatric patients have asthma, yet, nearly the same percentage are uncontrolled asthmatic patients. FQHC also provides immunization and weight management for patients. The current immunization rate, extracted manually, shows an average between 82%-88% for ages 0-18 years old. Manual data collection showed an increasing number of children in Mississippi with obesity, but some youth patients do not have an associated treatment plan.

Synthesis of Evidence

The project aimed to design evidence-based policies and procedures to focus on improving healthcare for the rural population in the Federally Qualified Health Center. The section will include a literature review related to the issues under study, improving policies and procedures, and patient care in Federally Qualified Health Centers. Subsequently, individual attitudes and barriers to change were analyzed. More specifically, in this section, medical challenges regarding improving quality measures presented in rural communities while providing an overview of approaches and strategies used to improve patient care and success have been included in the literature review.

Hypertension

According to the World Health Organization, Hypertension affects adults 19 years and older, even though the preference of the condition is high irrespective of age (World Health Organization [WHO], 2019). The prevalence of hypertension, regardless of age, requires close monitoring by healthcare organizations because of risks and complications.

Additionally, personal lifestyle habits have increased the hypertension rate among people of all ages, even teenagers. Guidelines embedded within the EHRs ensure that tests, results, diagnosis, and treatment are well managed and accessible to both patients and staff for monitoring.

Definition of Hypertension

Hypertension is a severe long-term health condition occurring when the circulating blood in the body's arteries is under too compelling exerting force in the wall of the body's arteries. Hypertension is a silent killer because many people living with hypertension are unaware of their condition due to a lack of symptoms and warning signs, including adults. Health conditions commonly linked to hypertension are the brain, kidney, and heart diseases. Since many people are unaware of the onset of hypertension, especially individuals residing in rural communities, identifying the prevalence of hypertension is vital. Developing policies and procedures are vital to providing healthcare providers with evidence-based knowledge about hypertension guidelines.

Presentation of Hypertension

A hypertension diagnosis is determined over multiple visits. In most cases, healthcare providers measure patients' blood pressure. The systolic number indicates the force of blood on vessels during heartbeats. The diastolic number records the blood pressure in vessels between heartbeats when the heart is resting. A diagnosis of hypertension is confirmed over two visits when the systolic reading on both measurements on different days is ≥140 mmHg, and the diastolic force of the blood

Table 1

JNC 8 Stages of Hypertension

Prehypertension	**Stage 1 Hypertension**	**Stage 2 Hypertension**
Blood Pressure 120/89	Blood Pressure 130/89	Blood pressure 160/100
Lifestyle Modification Weight loss, diet control, physical activity, limit sodium intake and alcohol and consider potassium supplementation No Chronic Vascular disease (CVD)	Antihypertensive plus nonpharmacological therapy First-line Thiazide diuretics, Calcium channel blocker (CCB) Angiotensin-Converting Enzyme (ACE) Angiotensin II receptor blockers (ARB)	Consider initiation of pharmacological therapy with two antihypertensive agents of different classes Thiazide diuretics, Calcium channel blocker (CCB), Angiotensin Converting Enzyme (ACE), Angiotensin II receptor blockers
Reassess in 1 year	Reassess in 3-6 months	Reassess in 1 month

Electronic Health Records (EHR) application for Hypertension

EHRs are a technological system highly used in the healthcare system to improve quality services. The EHR system consists of patient data such as blood type, blood pressure, body mass index (BMI}, patient history, social history, and family history. A thorough medical history is essential to identify patients with a high prevalence of hypertension (Ahmed et al., 2019). EHRs provide efficient and effective healthcare professionals' ways to import patient data, not limited to relevant high blood pressure-related to accessibility. Developing policy and procedure manuals to govern healthcare documentation is crucial for using electronic health records to capture critical patient information and documents. EHRs are also beneficial for tracking health progress for patients with hypertension, which is one way to increase care quality for patients in rural areas. According to Beglaryan et al. (2017), linking EHR systems with evidence-based

computer algorithms helps to extract essential data used to identify patients with a high prevalence of hypertension.

Moreover, EHRs are a cost-effective method for surveillance of hypertension. Electronic systems enable patients to access their reports, such as the level of blood pressure, every time they visit the center (Gesulga et al., 2017). With an increasing hypertension prevalence, healthcare providers and patients in rural communities are overburdened with data and treatment plans, which proves electronic record systems are vital. Patients can use evidence-based information such as treatment and prevention measures, including regular exercise, diet, and family history, to reduce high blood pressure (WHO, 2019). Respectively, electronic health records also contain critical demographic and historical information used to evaluate and monitor hypertension in rural areas (WHO, 2019).

Electronic health records are the best way to identify the number of people, especially adults, who have a high rate of developing hypertension. In rural areas, an FQHC is useful as a point of surveillance for testing and recording patients with hypertension (Beglaryan et al., 2017). Electronic health records systems need structuring to extract and share useful information to identify patients with a higher risk of getting hypertension (Jung et al., 2017). The benefits of EHRs, which is a valuable tool for early detection and identification of patients at risk of hypertension, enhances the development of efforts to manage the condition before other chronic diseases are manifested.

Embedding and Development JNC8

The Eighth Joint National Committee (JNC-8) develops evidence-based recommendations on prevention, detection, treatment, medication, and management of

Hypertension among adults who are 19 years and above. JNC8 recommends goals to prevent hypertension with limited medication (Burns et al., 2019). Treatment for the general population starts when blood pressure ≥150/90 mmHg in adults 60 years and above or is ≥140/90 mmHg in adults between 19 and 59 years (Shrout et al., 2017). At the onset of treatment, patients should regularly monitor blood pressure to determine if dosage adjustment or additional treatments are needed (Shrout et al., 2017).

A well-written policy and procedure manual, which indicates how to document, identify, and retrieve data, is essential to promoting quality care. A manual with well-defined policies and procedures will increase patients' health awareness and ensure safe care is delivered (Record, 2016). Healthcare facilities need to include systems in the policy and procedure manual to guide medical professionals in the day-to-day duties and responsibilities to reduce potential mistakes and errors caused by healthcare providers (Yunus et al., 2019). Including a policy and procedure manual will ensure those patients with hypertension receive quality health evaluations and treatment plans; a committee should be organized to create a manual in which considers patient data. The manual should include approaches to identify, document, and retrieve quality measures. Further, the manual should govern the organization's daily activities to ensure the set guidelines, transactions, practices, and procedures are parallel throughout the organization to achieve the set objective.

Depression

Depression, a chronic condition, usually manifests in adults and goes overlooked and untreated, resulting in poor quality outcomes (Moise et al., 2018). Healthcare providers treat depression in adults and should be well-managed to achieve positive

outcomes. Interventions to care involve integrating integrated care in the Federally Qualified Health Center to encourage people to seek treatment for depression. Depression, a severe health condition among adults, is effectively treated using depression screenings and monitoring by directly working with the patients over a set period using established guidelines for depression treatment (Jones et al., 2018).

Integrated Care

The integrated approach of care is a patient-centered and comprehensive approach that can enhance patients diagnosed with depression and improve health care experiences. The integrated approach includes self-examination and care coordination, resulting in positive outcomes and patient satisfaction (Simas et al., 2018). An integrated approach also involves attempts to partially or thoroughly blend behavioral health services to manage depression issues (Bruce & Sirey, 2018). According to Martin-Subero et al. (2017), to improve access to depression treatment, healthcare providers in federal centers should use practical integrated care approaches to detect, diagnose, treat, and manage depression. A combination of treatments provides holistic care to patients who are receiving treatment within a healthcare organization. Integrated care aims to treat adults with depression to meet the many complexities aimed at improving patient outcomes. Integrating care enables healthcare professionals in the Federally Qualified Health Center to deliver high-quality care using available health systems and implement evidence-based integrated care (Moise et al., 2018). In integrated care guides, policies, and procedures for depression provide information on how effective integrated care works to ensure collaboration in care. The data collected for the project captured data from adults 19 years and above and offered integrated care.

Depression and Integrated Care

Primary care is essential for patients with behavioral disorders. Many healthcare providers in the FQHC primary care setting are engaged in integrated care for patients diagnosed with depression and other comorbidities (Simas et al., 2018). However, primary care is not always the best course of treatment for patients who reside in rural communities for the following reasons: lack of full examination, testing, and diagnosis, and in many cases, an unidentified diagnosis. Thus, integrating behavioral care into primary care in FQHC is essential to provide patients with holistic care (Bruce & Sirey, 2018). The approaches used in integrated care interventions monitor the behaviors and health of patients with depression, and the results obtained are analyzed and applied in the treatment plan (Sanchez et al., 2017). The general outpatient population suffering from depression is provided with quality healthcare and services such as preventive strategies, testing, diagnosis, treatment, and management advice when primary care is integrated with behavior care in FQHC facilities (Jones et al., 2018). The integrated care model gives the patient focus and attention by focusing on various domains and using different approaches to get to the root of depression. The integrated approach of care is patient-centered and comprehensive, enhances patient experiences, self-examination, and care coordination resulting in positive outcomes and patient satisfaction (Simas et al., 2018).

Patient Health Questionnaire-9 (PHQ-9)

The Patient Health Questionnaire-9 (PHQ-9) is a screening tool used to measure depression. The tool enables healthcare providers to diagnose depression and develop a strategic treatment plan as guidance responding to levels of depression, which include

minimal (5-9), minor (10-14), moderate (15-19), and significant (>20) depression (Martin-Subero et al., 2017). The PHQ-9 questionnaire is administered to the patients during the initial visit by a healthcare professional. Next, the responses are measured to determine whether or not the patient has depression. PHQ-9 is also used on the follow-up visit to measure the progress after the diagnosis and treatment have been initiated (Nguyen et al., 2016). The healthcare provider should know how to use the PHQ-9 tool to identify responses to treatment. The assessment tool can be used to monitor patients' progress and to evaluate the effectiveness of the treatment. PHQ-9 can be used in different capacities through the course of treatment, such as testing, diagnosing, monitoring symptoms, and follows the treatment progress (Nguyen et al., 2016). Also, the tool can be administered in different settings, physically or remotely.

Frequency of PHQ-9

After initial PHQ-9 screening, the data is recorded and stored in the systems to ensure safety and availability during the next visit. Testing using PHQ-9 screening repetition happens again during the follow-up appointment. Appointments are usually within four to six weeks of initial testing and data acquired compared to the original data collected. Comparison is essential to identify the success or failure of the medication given to treat depression.

Depression Long-Term Treatment

While depression is a recurrent chronic condition affecting the individual throughout the lifetime, the episodes only last for a limited period (Jones et al., 2018). According to Wang et al. (2017), depression reoccurs because there is no permanent treatment available. Various methods are utilized to manage depression and to prevent a

persistent recurrence. Antidepressant medications and therapy are treatments that reduce depression symptoms for a long time. When taking after diagnosis, antidepressant treatment may result in positive outcomes of full remission (Hallgren et al., 2017). Therapy involves psychotherapies, especially cognitive behavioral therapy, and motivational interviews, highlighting control emotions and behaviors by exposing the patients to the perceptions and actions that result in depression. Policies are essential in managing preventative outcomes regarding women's health.

Maximizing Impact of Quality Health Care in Gynecology at FQHC

Policies are essential in managing preventative outcomes regarding women's health. Policies and procedures establish a set of evidence-based standardized guidelines. The American College of Obstetricians Gynecologists (ACOG), The United States Preventive Services Task Force (USPSTF), and The American Cancer Society (ACS) provide recommendations to promote quality care for women’s health. Each recommendation has a set of different standardized guidelines. The purpose of setting policy and procedures within an FQHC is to communicate the organization’s goal and collectively attain anticipated benchmarks that impact quality care.

Fundamentally, quality care is imperative to improving healthcare outcomes in gynecology. Gynecology is defined as a field of medicine, providing care to women during pre-conception, pregnancy, childbirth, and after birth (Nour, 2016). Gynecology involves provisions and specializations in women's health, focusing on the female reproductive system irrespective of age (Morris et al., 2018). An FQHC should develop and implement a standard policy and procedure established by the Board of Gynecology guiding healthcare providers with individualized, effective, and quality reproductive care.

Collaboration between gynecology departments with other healthcare providers in an FQHC enhances quality care provided to women in rural areas. Collaboration optimizes the impact of quality healthcare to women in rural areas by increasing accessible and cost-effective gynecological care.

According to the Health Resources and Services Administration's (2018), breast and cervical cancer screening requirements for clinical quality measures are intended to ensure appropriate screening for those women of average risk for breast cancer. Health Resources and Services Administration's (HRSA) goal is to further reduce morbidity and mortality by ensuring patients can access Mammography and cervical cytology testing. HRSA quality markers are designed to measure the percentage of patients aged 40 to 69 years who have been screened for breast cancer with Mammography during the measurement year or year before the measurement year. Cervical cancer screenings with cervical cytology are recommended for a percentage of women 21 to 64 years performed every three years, and women ages 30–64 years, cervical cytology plus Human Papillomavirus (HPV) co-testing performed every five years.

Pap Smear and Mammograms Statistics in Mississippi

Mississippi legislation and policies related to cervical and breast cancer programs carry out surveillance using FQHC as focal points to identify patients visiting healthcare organizations for gynecology services (Gogtay & Thatte, 2017). In the United States (U.S.), 93% of women report they had one pap smear screening during their lifetime. For example, in the U.S., for women with low cervical cancer risk, 55% undergo Pap smear testing per year, 17% undergo two-year screening intervals, and 16% undergo three-year interval screenings. In comparison, 11% did not undergo regular screening (Smith et al.,

2018). Among the elderly, 38% of females between 75-84 years undergo regular yearly pap smear testing, and 20% of women over 85 years undergo pap smear testing annually (Hall et al., 2018).

The Mississippi Breast and Cervical Cancer Early Detection Program aim to detect cancer in women with high risk by encouraging frequent mammograms and pap smear tests (Zahnd et al., 2019). The prevalence of mammography screening in women 40 years and above for breast screening in Mississippi is 69.4%, while Pap smear testing for women 18 years and above for cervical cancer screening in women living in Mississippi is 85.5% (Gibson et al., 2019). The FQHC facilities in Mississippi offer pap smear screening to uninsured women between 40-64 years (Fortune, 2017). On the other hand, mammogram testing is provided to women between 40-49 years at no cost when the facilities have special funding. Mammography screening is offered to uninsured women between 50-64 years through contracted providers (Fortune, 2017).

Pap Smear

In 2016, the U.S., 22.6 million women, 69% of women aged 18 years and above, visited gynecologists and had pap smears over the last three years (Rui & Okeyode, 2016). Evidence-based research has shown that, if robust screening is implemented, cervical cancer is a preventable disease. Early detection and appropriate treatment are essential strategies for preventing cervical cancer. Initial cervical epithelial changes can be identified by a pap smear test, the primary screening test for detecting precancerous cervical intraepithelial neoplasia and the initial stage of invasive cervical cancer (Gibson et al., 2019). Pap smear, a diagnostic method, is an uncomplicated, cost-effective, and non-invasive procedure performed by a gynecologist or nurse practitioner.

Establishing evidence-based policies and procedures for pap smear tests as a routine screening will enhance patients' outcome measures and reduce the treatment burden. Pap smear sensitivity in detecting the high-grade squamous intraepithelial lesion (HSIL) is 70.80% (Sachan et al., 2018). In combination with an HPV test, pap screening increases the sensitivity for early detection of precancerous lesions (Sachan et al., 2018). According to the American Cancer Society (2020), a pap smear test, a routine cancer screening method, should be done every three years. A pap smear with an HPV co-test to optimize cervical cancer detection is recommended as a screening method every five years.

Pap Smear Guidelines

Screening guidelines have evolved. Pap smear recommendations are to commence pap testing at age 21 years old. Females below 21 years old are at very low risk of cervical cancer, and such patients' screening has been shown to have more harm than good (Mathias et al., 2012). Abnormal cells can be readily identified in females below 21 years old, but should not raise any concerns as abnormal cells resolve within two years without any treatment. The resolution of abnormal cells occurs without any intervention; however, unwarranted pap tests may cause anxiety in patients. Pap tests performed to females below age 21 years may also reveal certain HPV infections without a link to the cervix (Mishuris & Linder, 2014).

Human Papillomavirus (HPV) Co-Testing

Routine HPV tests are not recommended in patients below 30 years old. HPV is the most common sexually transmitted infection (STI) in the U.S. An estimate of four-fifths of the sexually active population has a lifetime risk of acquiring HPV. For this

reason, most females below 30 years old have various HPV strains. The strains predominant in the age-group 30 years old are denied as low-risk and do not pose any danger to the patients, and in 90% of the cases, the infections resolve on their own (Mishuris & Linder, 2014). Low-risk HPV strains and self-resolution are why routine HPV tests are not recommended for females below 30 years old.

HPV positive women are five times more likely to have cervical cancer than HPV negative women. Compared with the Human Immunodeficiency Virus (HIV), HPV is a sexually transmitted infection (Raab, 2013). Secondly, HIV compromises the immune system leading to more persistent HPV infections in the HIV population. HPV increases the likelihood of acquiring various HPV subtypes, including the high-risk types linked to cervical cancer. Cervical cancer caused by high-risk HPV subtypes leads to a high percentage of cervical cancer treatment failure among the HIV positive population secondary to their compromised immune system (Raab, 2013). Therefore, routine screening and early treatment should be incorporated into the HIV care of women.

American College of Obstetricians Gynecologists (ACOG) Recommendations

According to ACOG (2018), cervical screening should start at 21 years old. ACOG guidelines state that 21-year-olds, regardless of sexual debut and other behavioral risk factors, are set age. Screening of patients below age 21 is strictly not recommended. For women between 21 to 29 years old, recommendations to undergo pap smears every three years were suggested. Upon reaching 30 years, the guidelines recommend a Pap smear alone every three years, a Pap smear and an HPV test every five years, or an HPV test every five years. Patients above 65 years old with prior negative results upon screening need not test again. For patients with a history of positive effects of Cervical

Intraepithelial Neoplasia (CIN) or adenocarcinoma, the recommendation is to continue with screenings for another 20 years. Patients who have undergone a total hysterectomy are exempt from any screening. HPV vaccinations do not exclude women from being screened as per age recommendations. For women below the age of 21 years with no pathological history of HPV indicating a bimanual pelvic exam, an external genitalia exam is viable. For women above 21 years old also with no significant gynecological health history warranting a bi-annual pelvic exam, a decision can be made following discussions between the patient and healthcare provider. Policies and procedures are essential to aid in actual decision-making and to gain desired outcomes.

The United States Preventive Services Task Force (USPSTF)

The guidelines (USPSTF, 2018) state cervical screenings should begin at 21 years of age. Women between 21 to 29 years old should undergo a pap smear every three years. Women should, however, wait until 30 years to have an HPV test performed. The preferred method for patients between 30 to 65 is doing a pap smear and the HPV co-test every five years or a pap smear every three years. Women who have attained 65 years old and have a good screening history, which indicates a low risk of cervical cancer, can have a terminal screening done at 65. Consequently, women who have attained the same age but have never been screened, or do not meet the threshold of adequate screening history; routine screening should continue for 20 years. Other conditions necessitating a screening of women above 65 are the history of the precancerous or cancerous lesion or immunocompromised is included in health history. Following a total hysterectomy, a screening pap test is unwarranted. Lastly, HPV vaccinated women are not excluded from cervical cancer screening.

American Cancer Society (ACS)

The American Cancer Society (ACS, 2020) guidelines state screenings should begin at 21 years of age. Early involvement in sexual activities and other high-risk behaviors do not warrant lowering the initial screening age. Recommendations for a pap smear are every three years for women between 21 to 29 years old. pap smears should not include HPV testing at ages 21-30 years. Women between 30 to 65 years old should have a routine pap smear every three years. The preferred method is doing a pap smear with an HPV test every five years. Upon reaching 65 years old with three consecutive negative cytology results or two negative co-test results within the last ten years, screening is unwarranted. However, if one has a history of CIN or adenocarcinoma at the same age, routine testing should be performed for another 20 years. Following a total hysterectomy, no further screening is required, unlike in a supra-cervical hysterectomy whereby screening is recommended. Lastly, HPV vaccination does not make one exempt from screening.

Cervical Cancer and HIV

According to Raab (2013), in HIV positive women, cervical cancer is the most common of all cancers. HIV positive women are five times more likely to get cancer of the cervix as compared to HIV negative women. One leading explanation is the development of pre-invasive lesions leading to cervical cancer if not medically managed. HIV is a high-risk factor for cervical cancer, bringing into light the need for regular cervical cancer screening and prompt initiation of early treatment among HIV positive patients. Screening of HIV positive women should be done via pap smear twice in the year following their diagnosis and once every year after.

Mammography

Mammography is a procedure used to screen women's breasts, which produces an image of the breast used by oncology gynecologists for early detection of breast cancer (Mohamed, 2018). A screening mammogram confers several benefits to the patient by detecting breast changes such as tumors and abnormal tissue growths and reducing death rates related to breast cancer since early detection treatment is more effective. Some of the common signs and symptoms include a lump in the breast, thickening of breast tissue, pain in the breast or axillary, nipple discharge, inverted nipple, one breast is larger than the other, and a rash around the nipple (Schapira et al., 2018). During mammography, competent and excellent clinical practice is guided by policies and procedures, which govern the healthcare professionals as sensitive care is provided.

There are several risk factors for breast cancer. The non-modifiable risk factors include gender, age, and genetics, among others. Women are at a higher risk of getting breast cancer as compared to men. An increase in age is directly linked with an increase in the risk of acquiring breast cancer. Almost four-fifths of the cases are diagnosed in patients above 50 years old (Parsons et al., 2012). Having a family history of breast cancer, especially a first-degree relative, exponentially increases one's risk of acquiring breast cancer. Suppose the female inherits genetic mutations such as mutations to genes breast cancer antigen one (BRCA1) and breast cancer antigen two (BRCA2), their risk of getting breast cancer increases. A person with a history of breast cancer or certain breast diseases has a higher chance of developing breast cancer. Early menarche before 12 years of age and late menopause at 55 years leads to a woman predisposed to hormones for a more extended period and increases the risk of acquiring breast cancer. Dense breast

tissue contains less fatty tissue and more connective tissue. Women with such predispositions are at a higher risk of developing breast cancer. Radiation therapy to the breast before 30 years exposes one to an increased risk of acquiring breast cancer.

Other risk factors are modifiable. These risk factors include obesity and being physically inactive, which are linked to increases in breast cancer risk. Excessive alcohol consumption also plays a role in increasing the risk of breast cancer. Estrogen treatments, especially during menopause, even put one at risk. Diet with excessive fat should be avoided as it poses a danger. After 30 years of age, women with first pregnancy and who do not breastfeed are at a higher risk of developing breast cancer. Breast density is determined by the amount of fibrous or glandular tissue or fatty tissue. Increased fibers cause the density in breast tissue. With age, some breasts are reported to be less dense, and others remain the same. A mammogram can only determine breast density. Density has a negative impact on mammography, causing difficulty with identifying tumors in breast tissues. Studies show that having dense tissues exposes women to a higher risk of breast cancer.

The Gail model or the breast cancer risk assessment tool is used by healthcare providers to estimate the risk of acquiring breast cancer. A risk assessment identifies any outlined risk factors. The model grossly utilizes the following risk factors age, race, family history, age at menarche, age at birth of the first child, family history, the total number of breast biopsies, and the number of biopsies showing atypical hyperplasia (Schapira, 2018). Several limitations of the risk assessment tools include factors in inheriting mutated genes and a history of breast cancer or other abnormalities. The tool cannot predict whether breast cancer will occur, but the Gail model offers a concise

comparison of women with similar risk factors. A result of a 5-year risk of 1% means 1% of the women with certain risk factors will have a higher probability of developing breast cancer in the next five years. Women with a 5-year risk of at least 1.67% are considered high risk and are advised to take medication that lowers risks (Schapira, 2018). In the U.S., 36% of genetically exposed women with a family history of breast cancer underwent a mastectomy. In efforts to reduce mastectomy, significant sensitivity improvements were observed when breast magnetic resonance imaging (MRI) were combined to mammography in women at very high risk for breast cancer based on genetic mutations or family history (Warner 2011).

ACOG Recommendations

The guidelines by ACOG (2017) states patients aged between 25 to 39 years, a clinical breast examination should be performed every one to three years. For patients above 40 years old, the same examination is advised once every year. The recommended age for the initial mammography is 40 years. Mammograms between 40 to 49 following counseling of the patient and obtained consent can be implemented. A patient should not strike 50 years without having initial mammography. Mammography, at least once in a year or two years, is the current standard guideline. Upon reaching 75 years old, no further mammography is required.

USPSTF Recommendations

According to the USPSTF (2016), the guidelines suggest evidence-based research is inconclusive to either endorse or recommend against clinical breast examination. USPSTF recommends mammography should commence at 50 years of age. However, between 40 to 49 years, a personal decision to have a mammography screening can be

reached, afterward, should be once every two years. The guidelines claim to have insufficient evidence to substantiate the advantages and demerits of screening women past 75 years old.

ACS Guidelines

The guidelines do not recommend a routine clinical breast examination. The initial mammography, according to ACS (2020), should be done anywhere between 40 to 45 years, but preferably at 45 years. Mammography screening once every year for women between 40 to 54 years old, once every two years, and once a year for women above 54 years are the current recommendations. Mammography screening cessation occurs when the life expectancy of the patient is less than ten years.

EHR Integration of Pap smear and Mammography

The integration of EHR data in pap smear and mammography is crucial in preventing unnecessary tests and additional medical expenses. According to Mathias et al. (2012), at least 67% of women with a low risk of cervical cancer received screening tests prematurely. Carrying out unnecessary tests before stipulated guidelines lead to more advanced tests, increased anxiety, morbidity, and unnecessary medical expenses. The employment of EHR integration quality measures, particularly cervical cancer, and mammography, will help assist filtering and highlight measures to reduce unnecessary tests and financial burden. Embedding recommendations within the EHR will optimize data capturing by providing a unified documentation format and updated health maintenance. Another critical element in reducing undue cervical and breast cancer screening is constructing clear and concise policies and procedures manual, emphasizing healthcare quality measure outcomes, and outlining the FQHC facility's goals.

Maximizing the Impact of Quality Health care in Pediatrics

Pediatric healthcare deals with children's health and treatment. The center must have qualified health care providers to solve health conditions affecting children. In recent times, many babies are born with health issues or health issues develop as young children (Akinbami et al., 2018). According to the National Center for Health Statistics (2018), 96.6% of Mississippi children are immunized against communicable illnesses. 98.7% of the U.S. has received all the vaccines required to protect against communicable diseases (National Center for Health Statistics [NCHS], 2018). Pediatric centers are essential to managing the physical, mental, and emotional health issues children face. Different health conditions affecting children include Asthma, BMI, and lack of Immunizations, which, when not well treated and managed, may contribute to long-term health issues even when the children reach adulthood.

Immunizations

Childhood immunizations help to reduce infectious diseases. National healthcare centers have enough resources, personals, and vaccines to immunize the children who visit the clinics (Fisher-Borne et al., 2018). Healthcare providers promote quality health care by assuring health and wellness in children by educating the parents about vaccinations. According to The Center for Disease Control and Prevention (CDC) (2015), guidelines are in place to inform parents about keeping children healthy through immunizations.

In the U.S. for the year of 2017, 92.7% of children between 19-35 months get the vaccination for Polio, 83.2% for Tetanus, 91.5% for chickenpox, 91.4% for Hepatitis B, 82.4% received the Pneumococcal conjugate vaccine, and 70.4% received Combined 7-

vaccines series (CDC, 2018). Mississippi's immunization program is one of the most prosperous nations (Mississippi State Department of Health [MSDH], 2019). According to the MSDH (2019), since 1994, the immunization program in Mississippi has been dynamic, and a national leader in immunization coverage with a 99% rate for coverage in children entering kindergarten. Mississippi's program, the Vaccine for Children Program (VFC); allows children ages 0-18 years who meet the eligibility criteria: Native American, Alaskan Natives, or who have Medicaid to receive free vaccinations. Mississippi's VFC program also covers children who have insurance policies that do not cover vaccines. The program requires the underinsured child to be referred to an FQHC, Public Health, or Community Health Center to receive vaccinations (MSDH, 2019). According to CDC (2018), children's immunization coverage was lower for children in rural areas without insurance than those in cities with private insurance and Medicaid insurance with a prevalence rate of 1.9% to 1%, respectively. According to Leshem et al. (2018), vaccination among children in the U. S. is high and stable. Still, improvements are needed mainly to build the parental capital of parents who live in rural communities who may lack adequate knowledge on the importance of childhood immunizations.

Vaccination Statistics

In the world, an estimate of 19.4% of children who are below one-year lack recommended vaccinations though the proportion of vaccinated children is high. According to the CDC (2018), 1.3% of lower elementary children did not receive vaccines due to upswings, refusal, and skeptics of the parents and communities. In the U.S., 0.3% of children between 19-35 months have received the recommended immunizations against infectious diseases such as measles, chickenpox, Polio, hepatitis

A, B, and whooping cough. On the other hand, a high percentage of 98.7% of children in the U.S. have received all the vaccines required to protect them against communicable diseases (NCH, 2018). According to the CDC (2019), Childhood Vaccination Coverage Trend Report, Mississippi's vaccination coverage rate for two-year-olds born between the years 2011-2016 was 89.7%.

Importance of Immunization in the U.S.

In the U.S., children immunized at birth are protected from 20 million diseases, and more than 40 thousand deaths are prevented. When children are vaccinated, the probability of the following conditions, measles, polio, and hepatitis A, B, is reduced with the percentage indicated. Vaccines protect the children against illness and decrease the mortality rate for children by 2-3 million globally. For example, the mortality rate of measles globally has decreased by 73% (NCHS, 2018). For greater than 50 years, immunizations have protected children in Mississippi from deadly diseases. 90% or more children are immunized once childhood vaccinations are given. Successfulness in immunity is responsible for the striking drop in disease cases in the U.S. and Mississippi (MSDH, n.d.).

Table 2

Course of Vaccinations

2 Months	4 Months	6 Months	12-15 Months	12-24 Months	4 Years Old
Pediarix	**Pediarix**	**Pediarix**	**MMR** *(measles, mumps, and rubella)*	**Hep A** *(hepatitis)* *2 doses*	**Kinirix** *(DTaP and IPV)*
DTAP *(diphtheria, tetanus, and pertussis)*	**Prevnar**	**Prevnar**	**Varicella** *(chickenpox)*		**Pro quad** *(MMR and Varicella)*
IPV *(Polio)*	**Hib**		**DTAP**		
Hepatitis B **Prevnar** *(pneumococcal)* **Hib** *(Haemophilus influenza type B)* **Rotarix** *(rotavirus)*	**Rotarix**		**HiB** **Prevnar**		

Table 3

Probability of Disease in Immunized Children

Disease	**Reduction % for Immunized Kids**	**Reduction % for Non-Immunized Kids**
Measles	99.9%	0%
Diphtheria	100 %	0%
Smallpox	100%	0%
Polio	100%	0%
Tetanus	92.9%	0%
Pneumococcal conjugate syndrome	99.3%	0%
Rubella	99.9 %	0%

(National Center for Health Statistics, 2018)

Federally Qualified Health Centers should develop current systems to safely provide vaccines and discuss issues influencing pediatric immunizations to increase

vaccination coverage in rural areas (Lunday & Robbins, 2016). Healthcare policies and procedures regulate and address the current needs to improve immunization coverage nationally among children to protect against infectious and airborne diseases. Vaccines are administered to healthy children to provide immunity against preventable diseases. By following the set routine, policies are implemented to enhance safety and efficiency in managing the vaccines. The Food and Drug Administration (FDA) assures the vaccines used to immunize the children are safe and efficient and cause no permanent side effects (Hambidge, 2016). Healthcare providers in a Federally Qualified Health Center ensure proper immunizations and monitoring by following the vaccinations' regulations and procedures. Before administering the vaccine, parental consent should be obtained. Well-written vaccination records displaying routine immunizations are maintained and distributed to the parent.

Immunizations are accessible and cost-effective. Healthcare providers should ensure that vaccines are safe and beneficial to the health and well-being of the child. According to Alexander et al. (2018), policies and procedures are required in administering immunizations to protect children from infectious diseases and provide safety guidelines to lessen anxiety in parents. Safety guidelines help encourage parents to allow children's vaccination, reducing the risk of getting the communicable disease (Lunday & Robbins, 2016).

Asthma

The prevalence of childhood asthma in the U.S. is increasing in both sex and all races for the last two decades, with 8.4 % of children having asthma (CDC, 2018). Asthma is more common in children than in adults; with 8.4% of children having asthma

in the U.S. Additionally, asthma is more common in boys than girls with a rate of 9.2 % to 7.4 %, respectively (Zahran et al., 2018). According to the CDC (2018), one child per every 12, which is about 6.2 million children under 18 years old, have asthma. Asthma is the leading chronic disease in children and the third-ranking cause of hospital visits among children 15 years and younger; asthma remains costly and causes children to miss school (National Health Interview Survey [NHIS],2018).

Currently, 9% of children in Mississippi have asthma. The lifetime childhood asthma rate was 13% in 2015. In Mississippi and the U.S., males have a greater rate of childhood lifetime asthma as opposed to females. Males currently rank at 16.2 %. Currently, 14.5% of African American children in the U.S. have childhood asthma (childhood asthma in Mississippi). Pediatric care entails collaboration with other providers to solve complicated health issues such as the diagnosis of asthma in infants and young children. Additionally, policies make sure the practice considers ethical considerations and medical concerns by following the rules to deliver quality care to children. Following the policy and procedures manuals leads to positive results and feedback because each step brings the healthcare profession closer to the solution and management of health issues resulting in positive outcomes.

Causes of Asthma in Children

Asthma, a chronic disease, is caused and worsened by agents in the environment, such as pollutants in the air, smoke, and changes in the weather conditions such as being cold in the morning and evenings. (Zubair et al., 2018). Allergies to pollen dust and animal fur can also cause and worsen asthma in children. Children with asthma are prone

to u and the common cold, which trigger asthma attacks. Thus, measures should be taken to reduce exposure of agents in the environment of asthmatic children.

Diagnosing Asthma in Children

The diagnosis of asthma in children can be challenging and requires a lot of attention and observation from parents and healthcare providers. Many children cannot thoroughly explain their symptoms; therefore, parents should be very observant during the initial development stages, particularly children under five. Consequently, adults responsible for the child, such as parents and teachers, should know symptoms such as coughing and wheezing, which are the initial symptoms of asthma. When symptoms are detected, standard diagnostic tests to measure children's breaths to recognize asthma are available. Nonetheless, standard diagnostic tests are not accurate for young children, but will likely confirm asthmatic conditions (Schuler et al., 2019). Asthma symptoms in children include:

1. Producing a high-pitched wheezing sound with each breath.
2. Continuous coughing, especially during cold times in the morning and evening.
3. Shortness of breath resulting in difficulties breathing.
4. Pain in the chest and tightness of the chest.

Treating and Managing Asthma in Children

Asthma is a chronic and ongoing health issue that happens due to inflammation of the airways and makes children vulnerable to breathing difficulties (Zubair et al., 2018). Asthma is controlled either by medication before or when an attack happens to relieve the attack. In efforts to manage childhood asthma without utilizing medications, parents and

children should be aware of triggers resulting in asthma exacerbation. Triggers can be described as dust, cold, and challenging exercises such as running.

Some patients use vitamins and inhalers for preventive measures to reduce asthma attacks; however, such treatments may not be available for infants and younger children. Therefore, natural prevention measures include keeping the patient warm and avoiding pollutants, pollens, and dust specks. Federally Qualified Health Centers should have qualified healthcare providers monitor infants and children at each visit to minimize asthma symptoms by providing a standard asthma action plan when medication adjustments are needed (Zubair et al., 2018).

Obesity and Body Mass Index (BMI)

In the last two decades, the U.S. obesity rate has increased with Mississippi having the highest standard rate of obesity in adults and children, making it the U.S. (Gipson-Jones et al., 2019). Thirty-one percent (31.4%) of high school kids in Mississippi have obesity compared to 28.9% of high school kids nationally because only 36% of students in the state meet required physical activities (Kolbo, 2019). Children who are obese are at a higher risk of poor health outcomes. Community-based and sustained prevention, solution, and control are needed to address the obesity epidemic in Mississippi. In the absence of obesity in Mississippi, Medicaid, and Medicare costs would reduce by 11.8% and 8.5% (Gipson-Jones et al., 2019). Federal policies and healthcare organizations should develop measures and actions to deal with obesity problems among children, a priority health issue affecting the population. Obesity is a severe health issue that affects approximately 1 in 6 children (Schuler et al., 2019).

Tools such as BMI calculators should be available in federal centers measuring the child's body mass index at each visit to decrease poor health outcomes. Healthcare policy and procedures manuals provide affordable and accessible health care for all health conditions affecting children. Federal policies and regulations on obesity enhance coordination among agencies to address obesity health issues among children (Choi, 2019). National strategies involve establishing initiatives such as *Healthier Us*, which enable children to deal with obesity problems to live better, healthier, and longer lives through exercise, fitness, and a healthy diet (Lang et al., 2018). Federally Qualified Health Centers aim to create a transformation in healthcare systems to deal with obesity among children (Choi, 2019).

Body Mass Index

BMI is an essential tool to detect and identify obesity in children. BMI is Body Mass Index acquired using the children's height and weight element to indicate the body's fat level. Utilizing the BMI calculator is a cost-effective method and a tangible way to test children for weight issues resulting in health problems (Azizpour et al., 2018). BMI is calculated differently in adults and children; therefore, healthcare providers only measure children's weight but not adults. Healthcare centers should make sure the healthcare providers are qualified and follow the policies governing diagnosis, treatment, and management of obesity health issues among the children.

Healthcare providers use children's health information, such as diet and family history, to calculate BMI and diagnose obesity issues. Most healthcare providers try to diagnose obesity issues early enough to provide a treatment and management plan (Azizpour et al., 2018). BMI in children considers gender and age, considering the

growth pattern for males and females. Weight and fat differ for boys and girls and also change as they grow. Policy about obesity among children nationally and locally takes action to reduce the prevalence of obesity by putting efforts to use innovative approaches by healthcare providers to deal with the rising cases of obesity among children (Choi, 2019). Obesity is a risk factor associated with the development of Asthma among children. Parents should monitor children's weight to avoid obesity while simultaneously reducing the prevalence of asthma.

Policies and procedures have been developed at the federal level to guide healthcare providers to deal with obesity; for example, the Treat and Reduce Obesity Act of 2019 expands coverage for obesity treatment. According to Lang et al. (2018), The Act is based primarily on rural areas who avoided seeking medical care due to the cost (Lang et al., 2018). The Treat and Reduce Obesity Act ensures the children have routine healthcare visits, including BMI calculation, to monitor body mass. Healthcare providers in the Federally Qualified Health Centers are legally obligated to follow the policy and procedures manual; providers work relentlessly to provide quality care among the population in rural areas.

Rationale

Electronic health records improvements are needed. More rules to govern the system should be generated to meet the centers' standards and improve services and care qualifications to meet the requirements for a Federally Qualified Health Center (Beglaryan et al., 2017). EHR ensures that documentation is enhanced to provide safe healthcare services in rural areas (Salazar, 2017). Reliable healthcare systems optimize

data entry and retrieval. Safety enhances transparency, which in turn improves the quality of services provided to the patients.

Well-documented systems of operations ensure healthcare professionals organize and uphold the safety cultures in healthcare, especially in rural areas. Optimizing policy and procedures enhance UDS reports markers. Maximizing the utilization of the EHR data captured in preventive care is crucial in preventing unnecessary tests and extra medical expenses; as stated above, unnecessary tests led to more advanced procedures, leading to increased anxiety and morbidity and unnecessary medical expenses. The employment of optimizing EHR data capturing, particularly quality outcome measures, negate unnecessary tests and reduce the financial burden.

Doctor of Nursing Practice Essentials

The Doctor of Nursing Practice Essentials are foundational principles that outline the basis of practice and competency expected of all advanced nursing practice roles (American Association of Colleges of Nursing [AACN], 2006). The project utilizes Essentials II, III, IV, V, and VI. Essential II is an Organizational and Systems Leadership for Quality Improvement and Systems Thinking. The foundational basis for Essential II lies within the ability to evaluate and develop care delivery approaches that benefit the present and future of patient care. Pertinent to this project, advanced communication skills were used for a quality improvement project within the healthcare system to create better workflow and generate increased revenue for the practice. Principles of health policy that will improve the quality of care were addressed by the formulation of clinical documentation policies for each captured UDS measure within the three departments. Essential III is Clinical Scholarship and Analytical Methods for Evidence-Based Practice.

The substructure of this Essential III is the ability to design processes to evaluate outcomes within a practice setting. Additionally, policy manuals were created from the data collected via the use of information technology. Essential IV is Information Systems/Technology and Patient Care Technology for the Improvement and Transformation of Health Care. The scientific core of this essential is being able to design or evaluate programs to monitor outcomes of care, care systems, and quality improvement. This essential is an integral part of the project as the current EHR is being evaluated for an easier workflow and use in order to evaluate outcomes of change in the future by the use of enhanced policy and procedure manuals. Essential V is Healthcare Policy for Advocacy in Health Care. The footing of the essential is health care policy. The project is founded upon policy development. Leadership was demonstrated in the assessment of the healthcare facility's goals and through the implementation of a doctoral project to strategically address and resolve the facility's deficits in quality measures ratings. Essential VI is Interprofessional Collaboration for Improving Patient and Population Health Outcomes. The essential was addressed continuously throughout the development and implementation process of the project. The fundamental principle of the essential ineffective communication within the development of practice guidelines or health policy. The working phase of this project required the development of guidelines for use for healthcare professionals working in the FQHC. Lastly, the project required the experts of this project to lead discussions regarding the practice problem in order to formulate a possible resolution, which therefore addresses the essential.

Summary

The healthcare industry requires policies and procedures to enhance sufficient access to achieve the desired results to improve quality healthcare measures. Improving policies and procedures will require a synthesis of experienced providers' barriers and attitudes regarding existing EHR systems and practice guidelines. The development of the policy and procedure manual is a strategy to address data input and retrieval needs to increase the percentage of data collection. EHR embedded policies and procedures improvements are needed to meet the standards set for a Federally Qualified Health Center and to improve services (Equils et al., 2018). Respectively, the integrated approach of care enhances the patient experience and satisfaction, which is necessary when considering various health conditions.

Maximizing the EHR system's utilization is also recommended when considering the care of adults, women, and children, especially those who reside in rural communities (Gibson et al., 2019). Healthcare administration should adopt the policy and procedure manual to ensure optimal data capturing healthcare quality outcomes for children, such as retrieving inputted data focusing on childhood immunizations to reduce vaccine-preventable diseases. Policies and procedures will be effective in identifying, documenting, and tracking quality outcomes using the data from EHR.

CHAPTER II - METHODOLOGY

Policy and procedures ensure the quality of health care was aligned and met the organization's goals. Quality in health care is optimized by ensuring revised and periodically updated guidelines to give the care providers room for adherence to current clinical protocols. The project was geared toward quality healthcare outcomes and patient care, which are essential elements to the healthcare industry to improve desired results, improve financial incentives, and avoid missed components with documenting quality measures. Due to ongoing inconsistent and non-uniformed methods of identification, documentation, and retrieval of core quality measures, policy and procedures will be constructed to evaluate standards of practices and operations to ensure healthcare quality.

Context

The evidence-based practice was aimed to ensure that the FQHC facilities were stable and well-structured to use policy to guide practices such as Adult medicine, Gynecology, and Pediatrics to the population in rural areas. Utilizing the available resources and following the healthcare organizations' guidelines would ensure improvement in positive healthcare outcomes among the community (Volk et al., 2020). More research on using EHR and applying policies while identifying, diagnosing, and treating patients to enhance evidence-based research is needed.

Step 1. HRSA – Public Data Retrieval

The project did utilize public data from HRSA (https://bphc.hrsa.gov/datareporting/reporting/in-dex.html) from 2018-2020. A Retrospective Chart Review (RCR) from April 2019 to April 2020 to review quality measures and documentation for the following conditions was requested.

Step 2. FQHC Retrospective Chart Review (RCR)

Obtained a request for an RCR from April 2019 to April 2020 to review quality measures and documentation for the following conditions: Adults age 19 and older. (A) Hypertension using codes I10, Hypertensive chronic kidney disease with stage 5 I12.0, Hypertensive heart, and chronic kidney disease without heart failure, I13.11 (B). Depression using codes Major depressive disorder, since the episode, mild, F32.0, Major depressive disorder, single episode, moderate F32.1, F33.0, Major depressive disorder, recurrent, severe F33.1

Females ages 21 and older who had or will have a mammogram and pap smear using codes (A). Mammogram screening Z12.31 (B). Pap smear screening Z12.4 (C). Human Papillomavirus screening Z11.51 Children 1 month-18 years for (A). Immunization Z23 (B). Asthma, unspecified, uncomplicated, J45.909 (C). Obesity E66.9

Step 3. Review HRSA Public Data and Facility RCR Data

Public Data-Review of public data (HRSA) and RCR for the perspective of the potential impact on populations served in this FQHC was conducted. The data of patients who visited the clinic were utilized from April 2019-April 2020. RCR and public data required no specific number of charts to review; the data utilized met the date parameters as mentioned above.

Step 4. Develop Policy and Policy Manual for this FQHC Facility

Developed updated policies and procedures for FQHC. Used the data to focus on current clinic population priority needs to design policies and procedures for population-focused patient care. Data collected was utilized to improve current inconsistent and non-

uniformed policies and procedure methods when identifying, documenting, and retrieving core measures according to guidelines.

Step 5. Focus Group Session and Questionnaire

Focus group/Pre-Implementation Questionnaire (Online via Zoom) gained personal insight regarding attitudes and barriers with current policies and procedures on documentation processes regarding quality measures. The focus group was composed of 3 individual Nurse Practitioners from different departments (adult medicine, gynecology, pediatrics). Each Nurse Practitioner received an email invitation to participate in a questionnaire with the first two questions confirming consent and age 18 or older. The remaining questions were pertaining to factors that influenced deficits in quality measures ratings.

Step 6. Executive Summary to Administration and Survey

Policies and procedures were refined with input from the focus group members. An Executive Summary and formatted policies and procedures were presented to the FQHC facility and administrators. The updated policy and procedures were reviewed by administrative staff. The online questionnaire was given to administrators and providers to assess willingness to change and consider the adoption of updated executive summaries and policies and procedures. After reviewing updated policies and procedures, an online survey was given using Qualtrics© for input and views on adopting Policies and Procedures. First, two questions of the survey were your consent to participate "and "indicate if 18 years old or older." Survey questions did follow. The link to the website was provided.

Population and Setting

The report population included healthcare providers such as pediatricians, nurse practitioners, nurses, and gynecologists who work in an FQHC to provide healthcare to adults, women, and pediatrics of rural areas. The research sample was from the FQHC facility and patients who visited the organization for patient care services. The patient population-only included archival data extracted from the EHR system. Populations below were from the FQHC, where the retrospective chart reviews were obtained. Charts reviewed were of patients at FQHC within the time frame listed above who meet the criteria of the three populations:

Population 1. Adults with hypertension ages 19 and older.

Population 2. Adults with depression.

Population 3. Females ages 21-65 who will have or did have a mammogram and pap smear.

Population 4. Children 1 month to 18 years who received immunizations, asthma, and the number for each benchmark BMI with an existing treatment plan. Data from two separate questionnaires were included from each questionnaire listed below.

Population 5. Focus group/Pre-Implementation Questionnaire: Healthcare providers at the FQHC were composed of a focus group of pediatricians, nurse practitioners, nurses, gynecologists. Each participant had one to nine years of experience and was employed at the FQHC. Each participant received an email for online participation, an online consent to participate, and personal confirmation of over 18 years old was included. Qualtrics© was used to record responses, lasting 10-15 minutes. Sessions were completed virtually. Participants were given a phone number also if

internet access was interrupted. Only three of 11 healthcare providers were interviewed for this study. Only three of 11 healthcare providers were interviewed for this study, which consisted of one women's health care provider, one adult medicine provider, and one pediatric provider (key internal stakeholders).

Population 6. Administrators at the FQHC: An online questionnaire was given to eight administrators and providers to assess willingness to change and consideration for adoption of updated executive summaries and policies and procedures. After reviewing updated policies and procedures, an online survey was given using Qualtrics© for input and views on the adoption of policies and procedures. First, two questions of the survey were your consent to participate and indicate if 18 years old or older. Survey questions followed.

Interventions

Routine visits to the clinic and compliance with preventive screenings are essential in establishing and maintaining adequate quality measures markers within the EHR. Quality markers are necessary interventions utilized to measure outcomes by using optimal documentation within the EHR. The EHR shows the progress of patients each time patients visit the clinic. However, deficiencies in the documentation would alter reimbursement and quality ratings. Each department's intervention is developing a policy and procedure manual for FQHC to govern the practices and enhance data capturing and retrieval. The developed policy and procedure manual were presented to administration and healthcare providers for review and feedback of the proposed guidelines to improve operations and quality measures data. The projected outcome of the intervention was to validate the need for improved policy and procedure manual for a more uniformed

documentation system by identifying documentation deficits, de-identifying barriers to documentation, identifying healthcare workers' willingness to change, and assessing administration and staff buy-in adopting updated policies and procedures.

Measures

Two methods were utilized for data collection. The first interview was conducted individually utilizing an open-ended questionnaire survey. Live virtual interviews allowed for assessing participants' perceptions and enabled the development of common themes during data analysis. The interviewer discussed the participants' understanding and experiences with the EHR system, insufficient patient data entry; and (3) accessibility to patient data within the EHR system.

The second interview consisted of a focus group with an open format conducted at the monthly provider meetings. The interview allowed brief interactions amongst providers and administration regarding updated policies and procedures. Two methods were utilized for data collection: Focus groups allowed for open discussion between the participants, promote a sense of cohesiveness among participants, and help them to feel comfortable with sharing information, which lead to a candid conversation centered on the problem under study and provided possible solutions (Duggleby, 2005).

Analysis

The study used an interpretive phenomenological approach to analyze the providers' responses to questionnaire two and synthesize qualitative data. This approach allowed individual healthcare providers to reflect on perceptions and feelings of existing policies and procedures, the EHR system, and data entry. Descriptive statistics were used to describe quantitative data when describing participants from both surveys.

The analysis was crucial to assess and evaluate the source of information to ensure data is reviewed and relevant to answer a question from the research report. After extracting the information, effective appraising and evaluation were conducted to ensure policies developed to enhance qualitative and quantitative practices in FQHC. Extracted datasets obtained from each questionnaire variability were determined by mean, mode, and standard deviation to measure data outcomes. Lastly, utilizing thematic analysis, datasets were reviewed to anticipate the positive reception of policies and procedures updates.

Ethical Considerations

The project aimed to identify barriers and attitudes with documentation with the current EHR system and develop updated policies and procedures. A policy and procedure manual was developed using evidence-based guidelines to detail the facility's goals and objective outcomes. Participation was voluntary, and confidentiality was protected. Data was collected using HRSA Uniform Data Systems (UDS) reports, Greenway's EHR reports, and questionnaires.

Healthcare providers have an ethical duty to provide quality care within mandated guidelines to all patients in any organization. The DNP project supports the American Nurses Association (ANA) Code of Ethics provision 6, which focuses on nurses' responsibility to contribute to healthcare environments and are conducive to safe and quality healthcare (ANA, 2020). Services provided should be within these set standards of operations. Approval from the relevant offices/facility, including The University of Southern Mississippi Institutional Review Board (IRB) (Protocol # 20-347), consent from the board of directors, and maintaining the Health Insurance Portability and

Accountability Act (HIPAA) compliance, were received before carrying out the study. All data was stored in a password-protected personal computer. Qualtrics© through The University of Southern Mississippi was used for all online surveys. All data will be shredded or deleted six months after all graduation requirements have been met.

Summary

The project was aimed at designing evidence-based policies and procedures to influence improving healthcare outcomes for the rural population in a Federally Qualified Health Center. A review of the data reporting set was conducted in relation to improving policies and procedures and patient care in Federally Qualified Health Centers which adhered to HRSA guidelines for reporting all components of quality measures. Acceptance of the updated policy and procedure manual would influence and promote positive outcomes.

CHAPTER III - RESULTS

Introduction

In view, a policy and procedure manual is essential to evaluate standards of practices and operations. Policy and procedures ensure the quality of healthcare would align and meet the organization's goals. Quality in healthcare is optimized by ensuring guidelines were revised and periodically updated to give the care providers room for adherence to current clinical protocols.

The project's purpose was to highlight the deficits found in incentivized reimbursements and ratings, construct a policy and procedure manual, and gain insight from experienced nurse practitioners entailing their experience with the current EHR system and sentiments regarding documentation methods. According to information collected, the results indicate the development of policy and procedure manuals and utilizing the proposed policy and procedure manual would improve data collection, increase incentives reimbursements, and improve quality healthcare outcomes percentages.

Steps of the Intervention

Step 1

Upon meeting with the Chief Executive Officer (CEO) to determine the facility's need, a deficit was discovered in retrieving documentation regarding quality measures across the board, which was inconsistent with providers' feedback. A prospective project was developed. Following the project proposal, approval was granted from the DNP chair, committee, and Institutional Review Board (IRB Protocol # 20-347). Upon approval, an RCR from April 2019 to April 2020 was conducted to review quality

measures and documentation to identify missing components and uncaptured data for the following conditions outlined in Table 3. The project also utilized public data from HRSA (https://bphc.hrsa.gov/datareporting/reporting/in-dex.html) from 2019-2020 to focus on current clinic population priority needs to design policy and procedures for population-focused patient care in efforts to promote best clinical practices.

Table 4

Results of the RCR

Quality	**Measure**	**ICD**	**10**	**Age**	**Numerator**	**Denominator**	**%**
Hypertension	I10			19 years and older	1217	1971	62%
Hypertension with Chronic Kidney Disease	112.0	With a follow-up plan			870	2214	39%
Hypertension Chronic Kidney Disease without Heart Failure	I113.1				870	2214	39%
Depression	F32 mild	F32.1 moderate	F33.1 severe	19 years and older	297	4682	6%
Mammogram screening-bilateral	Z12.31			21-65 years old	324	1028	33%
Pap Smear screening	Z12.14			21-65 years old	669	1754	38%
HPV screening	Z11.51						38%
Immunization	Z23			1 month-18 years	0	167	0%
Asthma,unspecified,uncomplicated	J45.909			1 month-18 years	37	48	77%
Obesity	E66.9			1 month-18 years	2380	4207	56%
Estimated Total Revenue Lost for the fiscal year of April 2019- April 2020					$80,000	600,000	

As cited in Appendix C, three participants who are healthcare providers with one to four years of experience were identified after IRB approval (Protocol # 20-347). An email invitation encompassing a flyer that revealed the survey's background and purpose was sent to the three experienced nurse practitioners, one from each department: adult medicine, women's health, and pediatrics. The three nurse practitioners were interviewed via Qualtrics© during the project, utilizing an indistinguishable questionnaire form. Questions were designed to ascertain the quality of the objective structure, identify barriers to current policy, gain feedback to optimize best clinical practices at Federally Qualified Healthcare Centers, and assess attitudes with current EHR.

The data collection process included informed consent, retrospective chart review, a questionnaire, and a follow-up focus group discussion via Zoom™. A report of findings document was sent to the panel of experts using Qualtrics© to determine the quality of the evidenced-based Quality Improvements. Data was collected anonymously. In summary, the following questions were asked:

Focus Group Pre-Implementation Questionnaire

1. Do you consent to participate in this focus group questionnaire?
2. Are you over the age of 18 years of age?
3. How many years of experience do you have in your current position?
4. What do you feel will be the key challenges to inputting data in current EHR for quality measures?
5. How can the system be designed to optimize workflows regarding quality measures?
6. What would data entry features be useful for reporting for meaningful use?

7. Do the templates work for you?
8. What skills and resources does your organization have that make you believe that using the current EHR system will be successful?
9. Who do you feel will be the key facilitators in inputting the quality measures data/retrieval?
10. What challenges have you identified with the use of the current EHR system, data input?
11. What incentives have been discussed or are being planned for healthcare providers for inputting data measures in EHR?
12. Describe the areas where you think workflow will need to be addressed (quality measures, lab results, prescription refills, and tracking referrals).

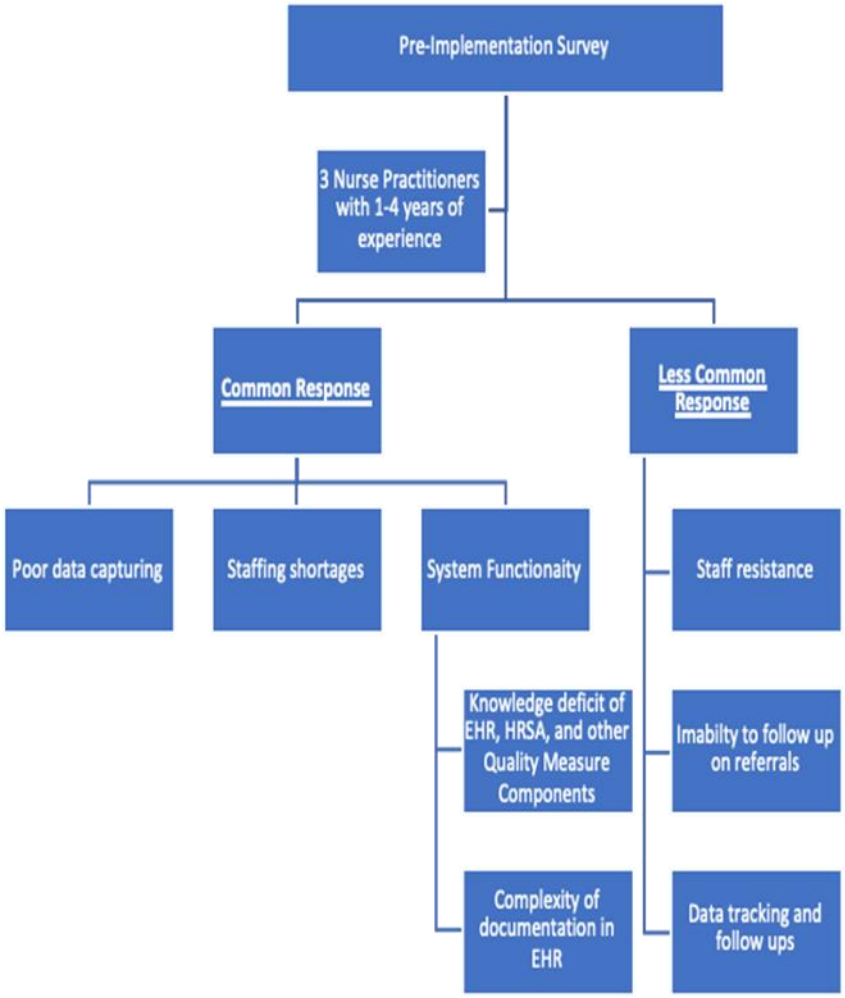

Figure 1. Focus Group Pre-Implementation Questionnaire Results

Feedback from the experienced nurse practitioners was video recorded, and responses were analyzed, and results were collectively equal among the nurse practitioners. A total of 75% of the responses suggested system functionality, knowledge deficits of the current EHR system, knowledge deficit of HRSA, and other quality measures components were barriers to quality documentation. The complexity of documentation in the EHR system, lack of clear and concise protocol, overall staff retention, and training was identified as limitations to documenting quality measures. Further, 100% of the panel concluded that a policy and procedure manual supported by

HRSA recommendations would demonstrate an appropriate guide to a uniform documentation format. Additional comments during the focus group video solidified the need for clear and concise evidence-based protocols. The focus group created a positive environment in which the participants openly and honestly communicate the barriers and limitations of meeting quality measures.

Step 3

A Retrospective Chart Review revealed deficits in retrieving documentation regarding quality measures across the board, which is inconsistent with providers' feedback. Providers within the FQHC voiced that measures are being implemented and documented; however, the system could not capture all data inputted. Due to inconsistent and non-uniformed methods of identifying, documenting, and retrieving core quality measures, policy and procedures were constructed utilizing current clinical practices supported by HRSA guidelines for core quality measures. The manual includes quality measures, evidence-based guidelines, and pre-selected HRSA core clinical measures.

Step 4

The formatted policy and procedure manual were introduced to the FQHC facility and administrators during a monthly facility meeting. The policy and procedures manual with revisions, edits, and additions of evidence-based best practices of clinical practice were presented to eight random administrative staff members for further review. An invitation was sent via an email containing a flyer introducing the survey that would request participation feedback. Subsequently, the link was sent via Qualtrics©, and eight responses were received from individuals within the administrative staff, affirming that a policy and procedure manual would be beneficial to the organization. Questions were

designed to assess acceptance with formatted policy, gain feedback to optimize best clinical practices at Federally Qualified Healthcare Centers, and attitudes with endorsing updated policy and procedures.

Administration Survey Questionnaire Questions

1. Do you consent to participation with this project survey?
2. Are you over the age of 18?
3. What is your age?
4. What is your gender?
5. What is your race?
6. What is your current position?
7. Do you think the updated policy and procedure, which includes guidelines to improve operations and quality measures, will benefit the organization?

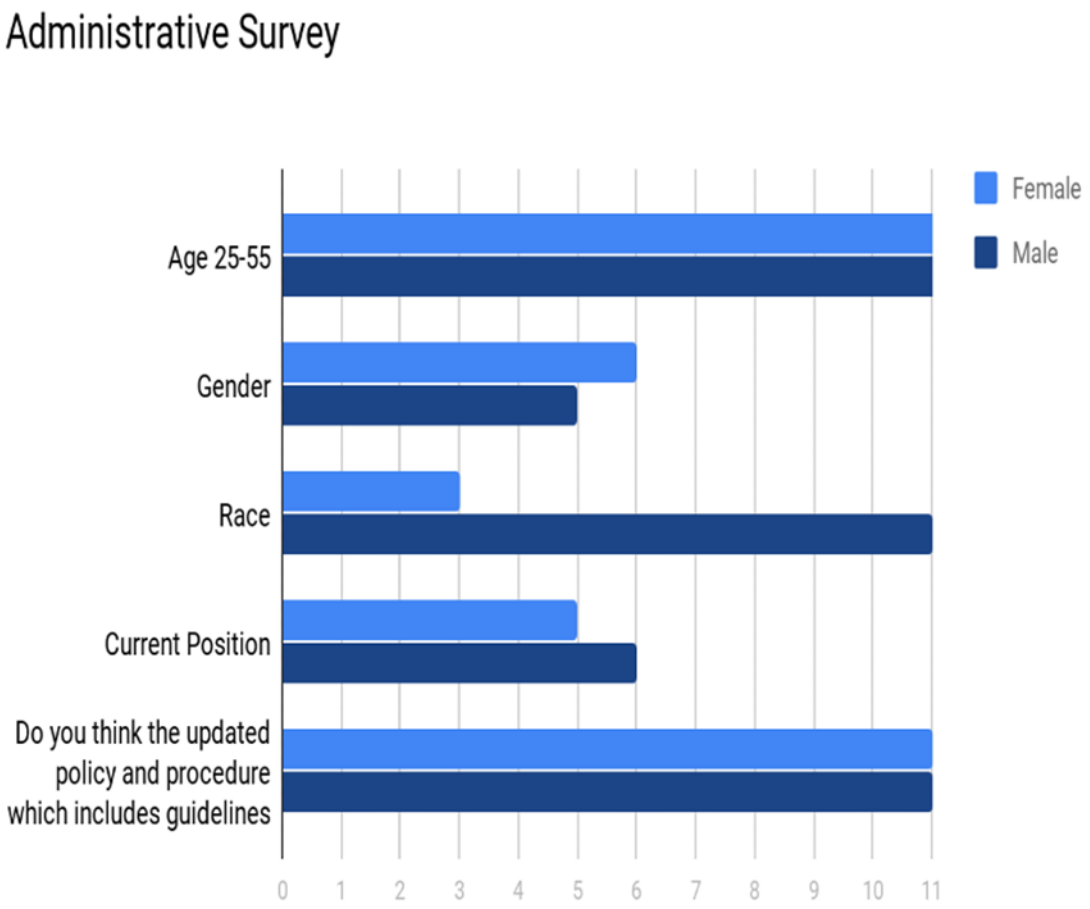

Figure 2. Administrative Survey Questionnaire Results

The administrative focus group revealed that the policy and procedure manual was widely accepted, and the content of the manual was essential in meeting organizational goals the main barrier was core administrative staff did not respond to email invitations. Eight emails were sent, and six responses were received. Although 75% of questionnaires were completed, major key stakeholders failed to respond to email. The administration survey revealed the policy and procedure manual was widely accepted and the content of the policies and procedures manual was essential in meeting

organizational goals. Eight emails were sent and six responses were received. Although 75% of questionnaires were completed, key stakeholders failed to respond to email.

Outcomes and Summary

The purpose of the evaluation process was to link deficits regarding reimbursements and ratings to insufficient data capturing, which will substantiate the need for clear and concise evidence supported guidelines. The project's perspective goals are to identify attitudes and barriers with current documentation formats, establish policies to optimize best clinical practices at federally qualified healthcare centers, and endorse updated policy and procedures. As initial goals are met, the expected outcomes of data collected will promote healthcare providers' confidence in documenting quality outcome measures and change within the facility; consequently, increasing incentivize reimbursement and quality ratings.

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CHAPTER IV – DISCUSSION

The doctoral project aimed to provide a uniform clinical evaluation using an evidence-based data collection system. The activities of this project included:

- Reviewing of the current policy and procedure manual.
- Researching for best evidence-based practices for three population and seven healthcare topics to be included in the policy and procedures manual,
- Developing and revising the manual after focus group session for input, and
- Presenting the manual and Executive Summary to administrative staff for recommendations to be utilized by the facility.

Results from the survey, completed by the administrative staff, support the policy and procedure manual conveying all core components that were met and displaying doctoral-level work. The policy and procedure manual reciprocates guidelines recommended by HRSA and can be compared for reflection of evidence-based practice guidelines. As a result, the policy and procedure manual created can be used as an asset to uniformly evaluate clinical documentation and data collection for Nurse Practitioners and other healthcare personnel. The strengths of this project include the quality measures that are evidenced-based using HRSA's protocol. The policy and procedure manual is standardized and provides a hard copy of quality measure guidelines, instruction, graphs, and links to future practice updates. Additionally, the manual includes interventions and serves as a reference tool for healthcare providers. The manual offers a standardized learning style. Moreover, the policy and procedure manual was designed utilizing elements that promote best clinical practices. Access to the updated clinical manual potentially provides the nurse practitioners the opportunity to enhance clinical evidence-

based practice guidelines. With expectations outlined and evaluated, nurse practitioners' documentation methods influence will have a positive effect on data retrieval.

Interpretation

The connection between the intervention, the manual, and the outcomes are deemed as beneficial to FQHC and healthcare providers. This project was an initial study; there are no other studies on Optimizing the Impact of Quality Improvements within FQHC. The value of this study for nurse practitioners is the policy and procedure manual providing a basic evidence-based guideline to assist with inputting quality measures and critical components. The anticipated outcomes supported the projected results. The prediction was that the policy and procedure manual would be beneficial to healthcare providers in FQHC clinical settings.

The feedback from the focus group strengthened the hypothesis of a formatted policy procedure manual boosting incentivized revenue. Guidelines outlined by HRSA were utilized to develop the manual; the experts supported the manual's construction as aligning with the theoretical position of evidence and supports Optimizing the Impact of Quality Improvements within an FQHC to be doctoral beneficial to other nurse practitioners and healthcare professionals for implementation. There were no cost and strategic tradeoffs in the study.

RCR

Archival quality measures data and documentations on preselected quality measures from April 2019 to April 2020 were collected and reviewed. Quality measures were identified by ICD -10 code and selected by the greatest deficit markers according to the FQHC Uniform Data Set. RCR reflected measured data as the total of patients visited

the clinic linked by specific ICD-10 codes as the denominator and of the total patient how many patients had all components of the quality measured document as the numerator. The percent in the last column of Table 4 represents the actual quality measure score. The RCR revealed improvement of some quality scores from initial public data which measured less than 25% (see Table 3 for diagnosis, ICD, and percentage marker). Public Data and RCR were accessed to review HRSA guidelines and incentive reimbursement guidelines.

Focus Group

After gaining providers' trust, the focus group revealed many barriers to quality documentation of outcome measures. Providers collectively voiced issues with the complexity of the EHR system. The problematic area was the multi-tabular charting system, there were too many places to document outcome measure results. Providers' efforts were not adequately reflected with captured data causing frustration with other members of the healthcare team. The focused group also revealed knowledge deficits related to all components required to meet the criteria for the quality measure. The focus group was an unexpected strength for the project. The group discussion solidified the basis of why a clear concise policy and procedure manual is needed to enhance outcome documentation. The manual with emphasis on outcome measure gives providers a guide on how to document and what document elements are required. The product of this policy and procedure manual lessens frustration and promotes quality documentation.

Administrative Group

The-results of the survey revealed that the policy and procedure manual was widely accepted and the content was of doctoral quality in meeting organizational goals.

The main barrier was core administrative staff did not respond to email invitations. Of the eight emails were sent and six responses were received. Although 75% of questionnaires were completed, key decision-makers failed to respond.

Limitations

Limitations include a small sample size of experienced participants. More participants could have yielded more recommendations and created generalizability. The experienced participants were selected, and all had a vast knowledge of quality measures, clinical measure outcome evaluation, and current manual guidelines to provide rich data and feedback. The participants were selected based on the ability to ensure quality feedback on the manual and experience level.

Another limitation of the study was the limited number of questions in the administration survey tool. These questions addressed the overall general evaluation of the policy and procedure. Questions could have been more specific and targeted to sections of the manual, supporting documentation, and inquiry for participants' feedback. However, the number of questions was limited to decrease the interaction time and the number of required interactions to decrease the participants' inconvenience.

Delivering the study with more detailed questions in the future could allow the study of more in-depth feedback on improvements for the manual. Lastly, during the intervention period, several challenges were identified, including nurse to provider ratios, knowledge deficit regarding critical elements to quality measures, retention of experienced stakeholders, difficulty recruiting Nurse Practitioners to participate in research, and insufficient and inconsistent data capturing. The identified challenges were overcome by the staff’s eagerness for change and evidence-based guidance.

Implications for Future Practice

More recent studies have shown formatting and implementing evidence-based policies and procedures ensures the provision of quality care. Polices enhance evidence-based operations that guide patients' treatment and care with specific and common medical issues (Page et al., 2017). The need for future research would be to examine the implementation of the created policies and procedures manual. A clinical quality manual can be a future implementation tool for improving the best clinical practice as an outline documenting quality measure.

Another aspect recommended for exploration is healthcare providers' perception of the updated manual and the effectiveness of implementation into practice. Future research would provide feedback on the manual's effectiveness, and adjustments can be made based on results. The potential of manual implementation could be utilized in other centers if clinical settings view a robust clinical foundation from nurse practitioners who utilize manual as a suggestion to other healthcare providers.

As information evolves, ensuring healthcare providers receive the current evidence-based practice can be challenging. For future practice implementing a quality analyst to keep abreast of evolving guidelines would be of subsidy. The quality analyst could serve as a liaison between the billing and coding staff and clinical staff. In consideration, the quality analyst would work under the supervision of the healthcare provider. The position of the quality analyst will consist of data entry of quality measures to EHR and doing quarterly, mid-year, and annual assessment of programs meeting goals Lastly, in an effort to strengthen the foundation of the policy and procedure manual, future sequential steps are needed:

Step 1: Evaluation of quality measures post-implementation of the policy and procedure manual.

Step 2: Introduction of the quality analyst (as stated above)/ and or evaluate effectiveness.

Step 3. Add additional quality measures based on the margin of deficit and evaluate the outcome.

Suggested Clinical Improvements

Tracking Improvements

- Alerts with HIV patients within the EHR.
- Alerts for a patient with hysterectomy.
- Alerts for outlining the number of patients with HIV with patients in comparison with compliance with a pap smear.
- Alerts for asthma patients.
- Alerts for immunizations.

Data Capturing Improvements

- Links to updated guidelines with the EHR.
- Periodic EHR training face-to-face/how-to videos.
- Pocket-sized guidelines or clinical manuals
- Assessment of current EHR for system availability to include these and further patient population measures and evaluations.

Human Resources

- Orientation to current EHR.
- Prolonged EHR system training.

- Position of Quality Analyst for data entry of new quality measures to EHR and doing quarterly mid-year, and annual assessment of progress to meet population-focused goals.

Conclusion

The evidence-based practice combines research evidence, clinical expertise, and quality measure outcome expectations; the manual addresses all three. The manual, supporting documentation, and follow-up focus group sessions are useful and functional because policies and procedure manual revisions can serve as valuable learning tools for identifying and sustaining the study. Recommendations for future research are to fully obtain support and approval from the board of directors and implement a quality analyst to enter quality measure data into the EHR in the appropriate format. The manual then should be adopted as part of the facility's clinical documentation record at FQHC.

Summary

Optimizing healthcare outcomes within an FQHC is achieved by promoting evidence-based research to enhance clinical practice guidelines among adults, women's health, and children (Equils et al., 2018). Federally Qualified Healthcare Center promotes health care by developing policies and procedures for quality care that impacts health and well-being among all populations. Policies and procedures optimize quality healthcare in all the regions, especially the rural areas by enhancing access and affordability of care to all the population (Volk et al., 2020). The policy implementation processes promote change in healthcare systems. Furthermore, the project concludes policy and procedures with a directional aim to document quality measures will enhance quality measure markers, lessen providers' frustration, and promote quality documentation.

APPENDIX A – ICD-10 Codes

Hypertension	I10
Hypertensive chronic kidney disease with stage 5	I12.0
Hypertensive heart and chronic kidney disease without heart failure,	I13.11
Depression using codes Major depressive disorder, since episode, mild,	F32.0
Major depressive disorder, single episode, moderate	F32.1, F33.0
Major depressive disorder, recurrent, severe	F33
Mammogram screening	Z12.31
Pap smear screening	Z12.4
Human Papillomavirus screening	Z11.51
Immunization	Z23
Asthma, unspecified uncomplicated,	J45.909
Obesity	E66.9

APPENDIX B – Administration Survey Questionnaire

1. Do you consent to participation with this project survey?

   yes or no

2. Are you over the age of 18?

   yes or no

3. What is your age?

   - 25-35
   - 36-45
   - 46-55
   - 55 and older

4. What is your gender?

   - Male
   - Female

5. What is your current position?

   - Administrative Staff
   - Provider
   - Clinical Staff
   - Executive Staff

6. What is your race?

   - African American
   - Caucasian
   - Latin American
   - Asian

- o Other

7. Do you think the updated policy and procedure which includes guidelines to improve operations and quality measures will be beneficial to the organization?
   - o Yes
   - o No

APPENDIX C - Focus Group Pre-Implementation Questionnaire

1. Do you consent to participate in this focus group questionnaire?
    a. Yes
    b. No
2. Are you over the age of 18 years of age?
    a. Yes
    b. No
3. How many years of experience do you have in your current position?
4. What do you feel will be the key challenges to inputting data in current EHR for quality measures?
5. How can the system be designed to optimize workflows in regard to quality measures?
6. What data entry features would be useful for reporting for meaningful use?
7. Do the templates work for you?
8. What skills and resources does your organization have that make you believe that by using the current EHR system will be successful?
9. Who do you feel will be the key facilitators in inputting the quality measures data/retrieval?
10. What challenges have you identified with the use of the current EHR system, data input?
11. What incentives have been discussed or are being planned for healthcare providers for inputting data measures in EHR?

12. Describe the areas where you think workflow will need to be addressed (quality measures, lab results, prescription refills, tracking referrals, etc.).

APPENDIX D – Policies and Procedures Manual

Federally Qualified Health Center

Clinical Documentation to Improve Quality Measures
Policies and Procedures Manual

Date Reviewed: Needs Updating
Date Approved: Needs Updating

TABLE OF CONTENTS

1. INTRODUCTION

The Clinical Documentation to Improve Quality Measures Policies and Procedures Manual provides the policies and procedures for selection and use of clinical documentation within the Electronic Health Records, which must be followed by all Providers and Clinical Quality Assurance staff members. The manual provides guidelines for the Providers to use in administering these policies, with the correct procedures to follow. The Quality Measures criteria guidelines below are in accordance with the Uniform Data System standards (UDS).

2. PURPOSE

The purpose of this manual is to detail the policies and procedures regarding the Clinical Documentation of Quality Measures.

3. HIPAA AND PHI

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) was signed into law on August 21, 1996 (P.L.104-196). HIPPA is a broad spectrum of legislation that focuses on the following three areas:

- Insurance Portability
- Fraud Enforcement
- Administrative Simplification

The administrative simplification component of the HIPAA legislation implements regulations for standardizing electronic transactions of health care data. HIPPA also contains provisions for the Privacy and Security of personal health information (PHI). Administrative simplification applies to all maintained and transmitted forms of PHI – including paper, electronic, or oral communications.

PHI is defined as any individually identifiable health information that is transmitted or maintained in any form or medium by an entity covered under HIPAA. Any information that is included in a patient's medical record or chart that could be used to identify the patient from a list of other patients with similar information should be considered PHI.

Examples of PHI includes but is not limited to the following:

- Name
- Street Address
- City
- Country
- Precinct
- Zip Codes
- Names of Relatives and employers
- Date of Birth
- Date of Service
- Telephone number
- Web URL and IP Address
- Biometric (finger print, Voice print, iris scan, etc.)
- Fax number
- E-mail address
- Social Security Number
- Medical Record Number
- Health Plan Beneficiary Number
- Account and Chart Numbers
- Certificate / License Numbers
- Vehicle Identification
- Device Identifiers
- Photographs
- And any other unique identifying number, characteristic, or code (whether generally available to the public realm or n

The following basic provisions govern use of PHI:

1. PHI may be used by FHC for purposes of treatment, billing, and/or operations.
2. FHC is required to notify all patients of how PHI will be used and to ask all patients for consent of PHI for any reason.
3. FHC is required to obtain a patient's consent for using PHI for reasons, including marketing, fund raising, and solicitation for research studies.
4. FHC is required to obtain authorization from the patient prior to release or disclosure of PHI to the patient's designee or other entities.
5. If information is disclosed by FHC, FHC will make an effort to disclose only the minimum amount of information necessary to meet the needs of the individual or entity requesting the information.

3.1 Disclosure of PHI

The patient's name, address, diagnosis, chart notes, lab results, treatment plan, insurance and/or financial information are all considered PHI. Unauthorized disclosure of PHI is strictly prohibited by all FHC staff.

3.2 Violations

Any employee who violates these rules or otherwise abuses HIPAA and PHI may be subject to disciplinary and/or legal actions including but not limited to termination.

4. Standard Clinical Guidelines

4.1 Quality Measure

Quality measures are tools that help guide measures or quantify healthcare processes, outcomes, patient perceptions, and organizational structure and/or systems that are associated with the ability to provide high-quality health care and/or that relate to one or more quality goals for health care. These goals include effective, safe, efficient, patient-centered, equitable, and timely care.

4.1.1 Hypertension

A long-term health condition that occurs when the circulating blood in the arteries is under compelling exerting. Hypertension is known as a silent killer. Systolic number indicates the force of blood on vessels during heartbeats. Diastolic number records the pressure of the blood between heartbeats when the heart is resting.

Stages of Hypertension according to JNC-8

- **Prehypertension**
  - Lifestyle Modifications
  - Recommended treatment
    - Weight loss, diet control, and physical activity
    - Limit sodium intake and alcohol and consider potassium supplementation
    - No Chronic Vascular disease (CVD)

        - Reassess in 1 year
- **Stage 1 Hypertension**
    - Blood Pressure 130/89
    - Recommended treatment
        - Antihypertensive plus nonpharmacological therapy
        - First line thiazide diuretics, Calcium
        - Channel blocker (CCB), Angiotensin
        - Converting Enzyme (ACE), Angiotensin II receptor blockers
        - Reassess in 3-6 months
- Stage 2 Hypertension
    - Blood pressure 160/100
    - Recommended treatment
        - Consider initiation of pharmacological therapy with 2 antihypertensive agents of different classes:
            - ✓ Thiazide diuretics, Calcium channel blocker (CCB), Angiotensin Converting Enzyme (ACE), Angiotensin II receptor blockers.
        - Reassess in 1 month
        - Formulary with yearly updates can be found here: https://www.acc.org/

1.2 Depression

Depression is a long-term health condition that many people struggle to treat because of the stigma.

PHQ9 questionnaire used to measure depression.

- Can be self-administered or by healthcare providers during the initial visit
    - Enables healthcare providers to diagnose depression and develop a strategic treatment plan
    - Levels of depression, which includes minimal (5-9), minor (10-14), moderate (15-19), and major (>20) depression
    - Facilitate the diagnosis of various levels of depression, such as mild, moderate, and severe depression.
    - Evaluates the effectiveness of the treatment on follow up visits.
- Repeat PHQ-9 assessment
    - 6-week follow-up visit to measure the progression after the diagnosis and treatment have been initiated.
    - Depression guidelines;
        - https://www.ncbi.nlm.nih.gov/
        - https://www.samhsa.gov/

4.1.3 Pap smear

Pap smear is a routine gynecological procedure performed to screen and detect Abnormal cells in the cervix which may lead to cancer. Cervical cancer testing starts when the female is at 21 years with interval of every three years between the ages of 21-29, who are sexually active. Women between 30-65 years or those with a higher risk of cancer need to take Pap smear with HPV co-testing every five years to optimize detection of cervical cancer. Women who are HIV positive pose an elevated risk for cervical cancer; after a baseline Pap smear, Pap smear should be repeated at 6 months then at 12 months.

There are 3 main descriptive categories of the cytology reporting:

Negative for intraepithelial lesion or malignancy

- No signs of cancer

Epithelial cell abnormalities

  - Cells lining the cervix and vagina show changes that might be cancerous or precancerous

- Squamous cell abnormalities
  - Atypical squamous cell of uncertain significance (ASC-US)
  - Infection
  - Irritation
  - Pre-cancer
- Atypical squamous cells with high-grade squamous intraepithelial lesion (HSIL)
  - Abnormal
  - More concerning of pre-cancer
- Squamous intraepithelial lesions (SIL)
  - Low grade SIL (LSIL) cells:
    - Mildly abnormal
    - Mild dysplasia
    - Cervical intraepithelial neoplasia grade 1
  - High-grade SIL cells:
    - Severely abnormal
    - Less responsive to treatment
    - Sub-names:
    - Moderate to severe dysplasia
    - Cervical intraepithelial neoplasia grade 2 or 3
- Squamous cell carcinoma
  - High risk of invasive cancer results.
- Glandular cell abnormalities:
  - Atypical glandular cells
  - Abnormal
  - May indicate cancer
  - Adenocarcinoma
  - Cancer of glandular cells
  - Endocervix
  - Uterus (endometrium)

Other malignant neoplasms

- Least likely to be found in cervix

Women with Human Immunodeficiency Virus (HIV)

- For Women with HIV Infection age 30 years or younger.
  - If younger than 21 years, known to have HIV infection or newly diagnosed HIV infection, and sexually active.
  - Screen within 1 year of onset of sexual activity regardless of mode of HIV infection.
- Women with HIV infection aged 21 to 29 years should have a Pap test following initial diagnosis of HIV.
- Pap test should be done at baseline and every 6- 12 months.
  - If results 3 consecutive Pap tests are normal.
    - Follow-up Pap tests can be performed every 3 years.
- Co-testing (Pap test and HPV test) is not recommended for women younger than 30 years.

Women with HIV Infection Age 30 Years or greater

Pap Testing Only

- Pap test should be done at baseline and every 6- 12 months
  - If results of 3 consecutive Pap tests are normal.
    - Follow-up Pap tests can be performed every 3 year.

Pap Test and HPV Co-Testing:

- Pap test and HPV co-testing should be done at baseline with initial pap test.
  - If result of the Pap test is normal and HPV co-testing is negative.
    - Follow up Pap test and HPV co-testing can be performed every 3 years.
  - If the result of the Pap test is normal but HPV co-testing is positive.
    - Follow-up test with Pap test and HPV co-testing should be performed in
    - 1year.
  - If the 1-year follow-up Pap test is abnormal or HPV co-testing is positive.
    - Referral to colposcopy is recommended.
    - Or perform HPV genotyping.
      - If positive for HPV-16 or HPV-18.
        - colposcopy is recommended.
      - If negative for HPV-16 and HPV-18
        - repeat co-test in 1 year is recommended.
      - If the follow-up HPV test is positive or Pap test is abnormal.
        - colposcopy is recommended.

Pap Test and HPV 16 or HPV 16/18 Specified in Co-Testing:

- Pap test and HPV 16 or 16/18 co-testing should be done at baseline with initial pap test.
  - If result of the Pap test is normal, and HPV 16 or 16/18 co-testing is negative.

- Follow-up Pap test and HPV co-testing can be performed every 3.
- If initial test or follow-up test is positive for HPV 16 or 16/18.
- Referral to colposcopy is recommended.

- Resource guidelines for Pap smear; https://www.acog.org/

4.1.4 Mammograms

A procedure which produces an x-ray image of the breast to detect breast cancer by healthcare professionals. Women at average risk of breast cancer, screening mammography is recommended every 1–2 years beginning at age 40 years. If screening was not initiated at 40 years, mammography should start no later than age 50 years. Screening should continue until at least age 75 years. Women at high risk should begin screening with breast MRI and mammograms every year, starting at 30 years. Yearly MRI screening is not recommended for women whose lifetime breast cancer risk is less than 15%.

High risk is considered as:

- Breast cancer risk 20-25 percent on family history assessment
- A known BRAC1or BRAC2 gene mutation.
- A first-degree relative (parent, brother, sister, or child) with a *BRCA1* or *BRCA2* gene mutation, and have not had genetic testing themselves
- History of radiation therapy to the chest when they were between the ages of 10 and 30 years
- Have Li-Fraumeni syndrome, Cowden syndrome, or Bannayan-Riley-Ruvalcaba syndrome, or have first-degree relatives with one of these syndromes

Developing breast cancer is increased by risk factors such as:

- Family history
- Medial history, genetics, age, race, family history, age of menses, age of first childbirth, first degree relative history of breast cancer
- Genetic tendency or other factors
    - Known BRCA1 or BRCA2 gene mutation
    - Resource for guidelines for Mammograms; https://www.acog.org/

4.1.5 Immunizations

Prevents childhood diseases. Immunizations are regulated by the Food and Drug Administration (FDA). Immunizations protect against 20 million diseases, and more than 40 thousand deaths are prevented.

Course of Vaccinations

- **2 months**
    - **Pediarix** (DTAP (diphtheria, tetanus, pertussis), **IPV** (Polio) **Hepatitis B**, **Prevnar** (pneumococcal), **Hib** (Haemophilus influenzae type B), **Rotarix** (rotavirus)

- **4 months**
  - **Pediarix, Prevnar, Hib, Rotarix**
- **6 months**
  - **Pediarix, Prevnar**
- **12-15 months**
  - **MMR** (measles, mumps, rubella), **Varicella** (chickenpox), **DTAP, HIB, Prevnar**
- **12-24 months**
  - **Hep A** (hepatitis A) 2 doses
- **4 years**
  - **Kinrix** (DTAP and IPV), **Proquad** (MMR and Varicella)

Vaccine	Minimum Age for Dose 1	Minimum Interval Between Doses			
		Dose 1 to Dose 2	Dose 2 to Dose 3	Dose 3 to Dose 4	Dose 4 to Dose 5
Hepatitis B	Birth	**4 weeks**	**8 weeks and at least 16 weeks after first dose.** Minimum age for the final dose is 24 weeks.		
Rotavirus	**6 weeks** Maximum age for first dose is 14 weeks, 6 days.	**4 weeks**	**4 weeks** Maximum age for final dose is 8 months, 0 days.		
Diphtheria, tetanus, and acellular pertussis	6 weeks	**4 weeks**	**4 weeks**	**6 months**	**6 months**
Haemophilus influenzae type b	6 weeks	**No further doses needed** if first dose was administered at age 15 months or older. **4 weeks** if first dose was administered before the 1st birthday. **8 weeks (as final dose)** if first dose was administered at age 12 through 14 months.	**No further doses needed** if previous dose was administered at age 15 months or older. **4 weeks** if current age is younger than 12 months ***and*** first dose was administered at younger than age 7 months, ***and*** at least 1 previous dose was PRP-T (ActHib, Pentacel, Hiberix) or unknown. **8 weeks and age 12 through 59 months (as final dose)** if current age is younger than 12 months ***and*** first dose was administered at age 7 through 11 months; OR if current age is 12 through 59 months ***and*** first dose	**8 weeks (as final dose)** This dose only necessary for children age 12 through 59 months who received 3 doses before the 1st birthday.	

			was administered before the 1st birthday, ***and*** second dose administered at younger than 15 months; OR if both doses were PRP-OMP (PedvaxHIB; Comvax) ***and*** were administered before the 1st birthday.		
Pneumococcal conjugate	6 weeks	**No further doses needed** for healthy children if first dose was administered at age 24 months or older. **4 weeks** if first dose administered before the 1st birthday. **8 weeks (as final dose for healthy children)** if first dose was administered at the 1st birthday or after.	**No further doses needed** for healthy children if previous dose administered at age 24 months or older. **4 weeks** if current age is younger than 12 months and previous dose given at <7 months old. **8 weeks (as final dose for healthy children)** if previous dose given between 7-11 months (wait until at least 12 months old); OR if current age is 12 months or older and at least 1 dose was given before age 12 months.	**8 weeks (as final dose)** This **dose** only necessary for children age 12 through 59 months who received 3 doses before age 12 months or for children at high risk who received 3 doses at any age.	
Inactivated poliovirus	6 weeks	**4 weeks**	**4 weeks** if current age is <4 years. **6 months** (as final dose) if current age is 4 years or older.	**6 months** (minimum age 4 years for final dose).	

Measles, mumps, rubella	12 months	**4 weeks**			
Varicella	12 months	**3 months**			
Hepatitis A	12 months	**6 months**			
Meningococcal ACWY	2 months MenACWY-CRM 9 months MenACWY-D	**8 weeks**	See notes	See notes	

Immunization Catch up Schedule. for Children Age 4 Months through 6 Years

4.1.6 Childhood Asthma

Asthma is a chronic and ongoing health issue that happens due to inflammation of the airways causing difficulty in breathing. Asthma is often managed with wide range medicine regimens. Asthma, a chronic disease, is caused and worsened by agents in the environment, such as pollutants in the air, smoke, and changes in the conditions of the weather such as being cold in the morning and evenings.

- **Plan:**
  - Often managed with wide range medicine regimens.
  - Therapy is age specific, according to the severity of the disease, and level of control.
  - Qualified healthcare providers monitor infants and children at each visit to minimize Asthma symptoms by providing a standard Asthma action plan when medication adjustments are needed.
  - Treating Pediatric Asthma According Guidelines; https://www.ncbi.nlm.nih.gov/

Stepwise pharmacotherapy management in asthmatic children.

	STEP 1	**STEP 2**	**STEP 3**	**STEP 4**	**STEP 5**
Reliever therapy	As-needed SABA		As-needed SABA or low dose ICS/ LABA		

	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5
Controller therapy		Low dose ICS	Low /medium ICS/LABA	Medium/high ICS/LABA	Add-on treatment (omalizumab)
Other common controller options	Low dose ICS	LTRA	Medium/high dose ICS Low ICS + LTRA	High dose ICS + LTRA	Low dose OCS

SABA, short-acting beta$_2$-agonist; ICS, inhaled corticosteroids; LABA, long-acting beta$_2$-agonist; *LTRA, leukotriene receptor antagonists; OCS, oral corticosteroids*.

Height in inches	Average peak flow	Yellow Zone 50-80% of average peak flow	Red Zone less than 50% of average peak flow
43	147	74 - 118	< 74
44	160	80 - 128	< 80
45	173	87 - 139	< 87
46	187	94 - 150	< 94
47	200	100 - 160	< 100
48	214	107 - 171	< 107
49	227	114 - 182	< 114
50	240	120 - 192	< 120
51	254	127 - 203	< 127
52	267	134 - 214	< 134
53	280	140 - 224	< 140
54	293	147 - 234	< 147
55	307	154 - 246	< 154
56	320	160 - 256	< 160
57	334	167 - 267	< 167
58	347	174 - 278	< 174
59	360	180 - 288	< 180
60	373	187 - 298	< 187
61	387	194 - 310	< 194

62	400	200 - 320	< 200
63	413	207 - 330	< 207
64	427	214 - 342	< 214
65	440	220 - 352	< 220
66	454	227 - 363	< 227

Asthma Action Plan; https://www.aafa.org/

4.1.7 Childhood BMI

Obesity is a severe health issue that affects approximately 1 in 6 children.

Body Mass Index

- Essential tool that detects and identifies obesity in children.
- Using the height and weight element indicates the percent of fat in the body.
- Obese children have a BMI measure between the 85th and 95th percentile considering age and gender.
    - **Management:**
        - Eating a balanced diet
        - Exercises are essential for children to enable them to stay fit and maintain a bodyweight that enhances overall well-being and health to manage obesity.
        - Pediatric Obesity Algorithm: https://www.ncbi.nlm.nih.gov/

5. Clinical Documentation

5.1 Procedures

- Resource; https://bphc.hrsa.gov/

5.1.2 Hypertension

Denominator (Universe): Columns 2a and 2b

• Patients 18 through 84 years of age who had a diagnosis of essential hypertension overlapping the measurement period with a medical visit during the measurement period

Note: Include patients with birthdate on or after January 2, 1935, and birthdate on or before January 1, 2002.

Numerator: Column 2c

• Patients whose most recent blood pressure is adequately controlled (systolic blood pressure less than 140 mmHg and diastolic blood pressure less than 90 mmHg) during the measurement period

Navigate to FHC CQM's 2019 Form within Intergy EHR system, Chose the IM (Internal Medicine Tab) Navigate to CQM 1 Tab and populate the appropriate CQM that correlate with patient.

Navigate to Incentive Form tab and populate the appropriate incentive code for patient if data is present from labs.

5.1.3 Depression

- Navigate to FHC CQM's 2019 Form within Intergy EHR system, Chose the Mental Health Tab populate the appropriate CQM that correlate with patient.
- Navigate to Incentive Form tab and populate the appropriate incentive code for patient if data is present from labs.
- Percentage of patients aged 12 years and older screened for depression on the date of the visit using an age-appropriate standardized depression screening tool and if positive, a follow-up plan is documented on the date of the positive screen.
- Patients with an active diagnosis for depression or a diagnosis of bipolar disorder.

5.1.4 Pap Smear

- Navigate to FHC CQM's 2019 Form within Intergy EHR system, Chose the OB (OBGYN Tab) populate the appropriate CQM that correlate with patient.
- Navigate to Incentive Form tab and populate the appropriate incentive code for patient if data is present from labs.
- **Criteria for measure**
  - **Denominator**
    - Women 23 through 64 years of age with a
    - Medical visit during the measurement period.
      a. January 01, 2020 through December 31, 2020.
    - Note: Include women born on or after January 1, 1955, and on or before December 31, 1995.
  - **Numerator**
    - Women with one or more screenings for cervical cancer. Appropriate screenings are defined by any one of the following criteria:
    - Cervical cytology performed during the measurement period or the 2 years prior to the measurement period for women who are at least 21 years old at the time of the test.
    - Cervical cytology/HPV co-testing performed during the measurement period or the 4 years prior to the measurement period for women who are at least 30 years old at the time of the test.
  - **Exclusion**
    - Women who had a hysterectomy with no residual cervix or a congenital absence of cervix.
    - Women who were in hospice care during the measurement period.

Women with HIV

Percentage of female patients with a diagnosis of HIV who were screened for cervical cancer in the last three years

- **Numerator:**
  - Number of patients in the denominator who were screened for cervical cancer in the last three years
- **Denominator:**

- Number of female patients with a diagnosis of HIV who: • Had at least one medical visit with provider with prescribing privileges and • Were > 21 years old in the measurement year1

Exclusion:

- Patients who had a hysterectomy for non-dysplasia/non-malignant indications

5.1.5 Mammogram

- Navigate to FHC CQM's 2019 Form within Intergy EHR system, Chose the Screening Tab and locate Breast Cancer Screening (CQM-125: UDS6811a) populate the appropriate CQM that correlate with patient.
- Navigate to Incentive Form tab and populate the appropriate incentive code for patient if data is present from labs.

Percentage of women 50–74 years of age who had a mammogram to screen for breast cancer in the 27 months prior to the end of the measurement period

- **Denominator (Universe):**
  - Women 51* through 73 years of age with a medical visit during the measurement period Note: Include women with birthdate on or after January 2, 1946, and birthdate on or before January 1, 1969.
- **Numerator:**
  - Women with one or more mammograms during the 27 months prior to the end of the measurement period
- **Denominator**
  - Women who had a bilateral mastectomy or who have a history of a bilateral mastectomy or for whom there is evidence of a right and a left unilateral mastectomy.
  - Patients who were in hospice care during the measurement period.
  - Patients aged 66 or older who were living long-term in an institution for more than 90 days during the measurement period.
  - Patients aged 66 and older with advanced illness and frailty

5.1.6 Immunizations

- Percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV), one measles, mumps and rubella (MMR); three H influenza type B (HiB); three Hepatitis B (Hep B); one chicken pox (VZV); four pneumococcal conjugate (PCV);

one Hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday.

- **Denominator**
  - Children who turn 2 years of age during the measurement period and who had a medical visit during the measurement period. April 01, 2019– April 1, 2020.
- **Numerator**
  - Children who have evidence showing they received recommended vaccines, had documented history of the illness, had a seropositive test result, or had an allergic reaction to the vaccine by their second birthday.

5.1.7 Childhood Asthma

- Navigate to FHC CQM's 2019 Form within Intergy EHR system, Chose the IM (Internal Medicine Tab) or Peds (Pediatric Tab) Navigate to CQM 5 Tab and populate the appropriate CQM that correlate with patient.
- Navigate to Incentive Form tab and populate the appropriate incentive code for patient if data is present from labs.
- Patients 5 through 64 years of age with persistent asthma with a medical visit during the measurement period.
- Patients who were ordered at least one prescription for a preferred therapy during the measurement period.

5.1.8 Childhood BMI

- Navigate to FHC CQM's 2019 Form within Intergy EHR system, Chose the Peds Tab populate the appropriate CQM that correlate with patient.
- Navigate to Incentive Form tab and populate the appropriate incentive code for patient if data is present from labs
- **Denominator**
  - Patients 3 through 17 years of age with at least one outpatient medical visit during the measurement period.
- **Numerator**
  - Children and adolescents who have had:
  - Their BMI percentile (not just BMI or height and weight) recorded during the measurement period and
  - Counseling for nutrition during the measurement period and
  - Counseling for physical activity during the measurement period.

APPENDIX E –IRB Approval Letter

Office *of*
Research Integrity

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NOTICE OF INSTITUTIONAL REVIEW BOARD ACTION

The project below has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services regulations (45 CFR Part 46), and University Policy to ensure:

- The risks to subjects are minimized and reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered involving risks to subjects must be reported immediately. Problems should be reported to ORI via the Incident template on Cayuse IRB.
- The period of approval is twelve months. An application for renewal must be submitted for projects exceeding twelve months.
- Face-to-Face data collection may not commence until USM's IRB modifies the directive to halt non-essential (no direct benefit to participants) research.

PROTOCOL NUMBER: IRB-20-347
PROJECT TITLE: Optimizing the Impact of Quality Healthcare Improvements within a Federally Qualified Healthcare Center (FQHC)
SCHOOL/PROGRAM: School of LANP
RESEARCHER(S): Felicia Keys,LaShundra Speights, LaDonna Phillips, Cathy Hughes

IRB COMMITTEE ACTION: Approved
CATEGORY: Expedited
7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

PERIOD OF APPROVAL: August 19, 2020

Donald Sacco, Ph.D.
Institutional Review Board Chairperson

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