A Needs Assessment to Improve the Pediatric Experience and Increase the Pediatric Population at East Area Family Practice

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Abstract

Recent years have demonstrated a decline in the number of children who have access to primary care services (Eden et al., 2020). Research also suggested those who are covered by Medicaid insurance are more likely to seek care from family practice providers rather than pediatricians (Wasserman et al., 2019). This is significant for East Area Family Practice (EAFP), where care is provided for individuals across the lifespan, and a significant number of patients have Medicaid coverage. A needs assessment was conducted in an effort to identify barriers to care, in addition to improvements EAFP can make to the experience of child visits. A survey was sent to current EAFP patients of childbearing age, and the parents/guardians of pediatric patients aged 0 to 12 years. Despite a low response rate, the findings provided points of interest for further investigation. Most respondents indicated they did not utilize EAFP for their children's primary health care. Based on the recommendations for improvement from current patients and reasons they indicated for staying with the child's current provider (non-EAFP), this survey identified considerations for further investigation, including vaccine and appointment availability.

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The number of primary care visits among the general population has been declining; some of the most significant declines seen is in those expected to have more frequent contacts with a PCP including children under the age of 4 years (Johansen & Niforatos, 2021). This includes visits to any primary care provider including family practice and general pediatricians. Additionally, there has been a sharp decline of pediatric patients who access care through a family practice office (Eden et al., 2020). However, the literature suggests that children from rural areas or those who are Medicaid insured are more likely to receive care in family practice settings (Wasserman et al., 2019). EAFP is a family practice outpatient office through Corewell Health (formerly known as Beaumont). EAFP is located in an underserved area where a large portion of the population is insured by Medicaid. The current phenomenon of interest is looking at how to improve the experience of pediatric visits and increase the pediatric patient population at EAFP. This may be accomplished by assessing reasons current families may not be bringing their children to the clinic and recommendations from current pediatric patients' caregivers to improve the experience at EAFP. A needs assessment was conducted to discover what parents/guardians are looking for in a primary care provider for their children, what parents have found as barriers to accessing care, and the current areas of growth or opportunity within the practice while obtaining care for their children. If the needs assessment provided significant information, it would have been utilized to create effective pediatric programs, policies, and protocols, which may have rendered the parents more likely to utilize EAFP as a medical home for the entire family and establish consistency for well child visits.

Background and Significance

When one provider cares for multiple members of a family, they are more familiar with the entire family history and related health risks. That provider would then be able to conduct shared visits where they are able to see more than one family member at the same appointment. The shared visits also allow for a decrease in the number of missed workdays due to healthcare appointments. Having shared visits between parents and their infants also shows an increase in preventative care sought by mothers. Without joined visits the mothers are instead bringing their children to their preventative visits and not attending visits for their own healthcare. (Larson et al., 2022). Family practitioners are uniquely positioned to assess the health and wellbeing of the mothers and infants together, addressing postnatal issues such as postpartum depression, breastfeeding, and contraception along with routine infant primary care. This can minimize the need to refer to another provider for a positive depression screening or other maternal or infant concerns. (Caskey et al., 2021)

There was a decrease in acute and well child pediatric visits in 2020 when compared to the number of pediatric visits in 2019 (Brown et al., 2021). Specifically, Medicaid covered children are less likely to complete their annual well child visits consistently (Shumskiy et al., 2018). Additionally, there has been a substantial decrease in the administration of the recommended childhood immunizations in 2020 when compared to 2019 (Feldman, et al., 2021). While the data observed by Feldman et al. (2021) is likely attributed to the COVID-19 pandemic, this decline in primary care use started many years prior, which was noted by Johansen and Niforatos (2021). Additionally, there has been a decrease in patient contact with primary care providers from 2003-2017 by an average of 2.5%. The most significant decline observed during this timeframe was in those patients who are typically seen the most frequently, including

children under 4 years and adults over age 65. The reason for the decline is unknown (Johansen & Niforatos, 2021). Wasserman et al. (2019) determined that in addition to the decline in primary care visits for children in Family Practice offices, it is those who are covered by Medicaid who are more likely to seek care at a family practice clinic. Hsiang et al. (2019) discovered that those with Medicaid coverage have more difficulty finding providers that accept their insurance than those with commercial coverage, suggesting that the Medicaid covered children are underserved and not receiving appropriate preventative care.

This significant drop in primary care visits, particularly for the pediatric population, is problematic because these visits are the foundation for parents and children to build relationships with their providers. Likewise, they establish the setting to provide education on how to address any non-emergent medical concerns that arise in addition to providing age-appropriate anticipatory guidance. According to Strum et al. (2014), providing parents with information on how to access medical services through a primary care office reduces the number of unnecessary ER visits. The increased compliance with well child visits, coupled with closer relationships and positive experiences with primary care providers also helps reduce the number of unnecessary emergency room (ER) visits (Nicholson et al., 2020). A reduction in the rate of ER visits will help decrease emergency department census and allow more timely treatment for true emergency cases.

Smith and Schafer (2012) found that 70% of employed mothers and 40% of employed fathers report needing to take time off work to care for their sick children; 50% of these parents report not having paid time for leave to compensate for this time. Increased pediatric visits at the PCP with preventative care and timely acute care may lead to fewer sick days and missed school days. This in turn may reduce the time parents need to take off work.

The literature indicates that late teens and young adults tend to get lost in the medical healthcare system (Johansen & Niforatos, 2021). There is not a smooth transition process from pediatric medical care to adult care; thus, this age group will frequently utilize the emergency room for mental health concerns and do not participate in preventative medicine visits (Toulany et al., 2019).

EAFP is a family practice clinic located in Roseville, MI, where the average household income is \$58,995, the average personal earnings is \$35,906 and a reported poverty rate of 13.84% (World Population Review, 2022). Within Roseville, 21.3% of the population is on Medicaid and 9.92% on Medicare (Deloitte & Datawheel, n.d.) The vast majority of this population has achieved "some college" with only 23.74% of the population holding any form of a college degree (Deloitte & Datawheel, n.d.). As family practice providers EAFP is uniquely positioned to address the aforementioned barriers for the population in Roseville and surrounding areas. EAFP is equipped to accomplish this by improving upon the continuity of care throughout the transition between pediatric and adult care, shared visits, and improving access to care for those with Medicaid. If EAFP could utilize the needs assessment to improve the pediatric experience and increase the number of pediatric patients seen in the office, this could ease the barriers.

Problem Statement

EAFP has seen a decline in the overall number of pediatric patients in recent years, as well as a reduction in the number of designated well child visits among their current pediatric population. There has also been a greater length of time between the visits for the pediatric population; children over 3 years of age have more than a one-year gap between visits and those under 3 years old seen at the office have a larger gap than the recommended schedule. EAFP

would benefit from determining how to improve the pediatric experience within the practice; thus, increasing the number of pediatric patients seen in the office and potentially improving continuity of care across the entire lifespan of the patients.

Clinical Question

Will a needs assessment of current adult patients of childbearing age and guardians of those aged 0 to 12 years in EAFP inform the providers of the aspects of care that the parents/guardians of the current pediatric patients find successful for pediatric care provided at the office. What do the parents/guardians of current pediatric patients suggest for improvements of pediatric care? What do parents/guardians of children who receive pediatric care at another office like or dislike about their current pediatric provider's office? Will a needs assessment provide insight into how parents may feel about coming to EAFP for pediatric care? Will a needs assessment provide data regarding barriers that may prevent families from seeking care at EAFP?

Literature Review

The literature search was completed utilizing Cumulative Index to Nursing and Allied Health Literature (CINAHL) and Pubmed. The search terms included: "family practice and pediatrics", "family medicine and well child visits", "increasing family medicine pediatric population", "children in family practice", "effect of dyad care of mother and child", "barriers to well child visits", "barriers to maternal preventative visits", "benefit of family practice primary care", "family unit medical primary care", "benefit of one primary care provider for family", "benefit of children seeing same provider as parents", "continuity of care for families", "continuity of primary care for children", "preventative care utilization of mothers", and "integration of mother child dyad". The search was initially limited to the last five years,

however, due to a lack of results the time frame was extended to 10 years. A total of 28 articles published in English over the last 10 years were included in this review and they identified common themes: mother infant dyad care, transition from pediatrics to adult care, barriers to and reduction of preventative care, reduction of pediatric use of family practice, and continuity of care.

Mother Infant Dyad

The articles addressing mother-infant dyad integrated care demonstrate that young mothers benefited from or would benefit from integrated dyad care, where mothers and children would be seen at one visit for both of their healthcare needs. Gregory et al. (2021) found young mothers were less likely to receive adult preventative care, even when they were taking their children to their pediatric well visits. This was observed in mothers who are covered by Medicaid insurance rather than commercial insurance. When the mother-infant dyad care was utilized for visits, researchers found an increase in the percentage of high-risk mothers attending at least one preventative care visit and a significant reduction in the percentage of 'no adult preventative visits' in the first year post-partum. Caskey et al. (2021) also found the implementation of dyad care increased maternal visits for women with gestational diabetes, while Gregory et al. (2021) observed an increase in preventative care for mothers experiencing hypertension and mental health issues who also had Medicaid coverage. The mothers who received the PHQ-9 (Patient Health Questionnaire), a depression screening, during their child's well visit were more likely to seek adult care during the postpartum period than those who did not receive the screening (Caskey et al., 2021). Mothers who had gestational diabetes were more likely to receive appropriate Type II Diabetes Meletus screening at preventative visits when care was provided in a dyad integrated model (Bose Brill et al., 2022).

It has been suggested that when fathers participated in the care of their child, improved cognitive, social, and medical outcomes were seen (Allport et al., 2018). All health care providers who care for children should encourage father involvement for the benefit of the health of the child in addition to the benefit of the fathers. Attending well child visits is another contact with a health care provider that fathers have, allowing them to participate in the discussion of vaccines, smoke exposure, and mental health screenings, similar to screenings mothers receive (Allport et al., 2018). This is a time fathers may be interested in addressing their personal health as well, leading to a unique opportunity to also address paternal health issues in addition to maternal and child health in a maternal-paternal-child triad vs solely a maternal-child dyad. (Allport et al., 2018).

Transition from Pediatric to Adult Care

Johansen and Niforatos (2021) observed that frequently the transition from pediatric to adult healthcare lacks a smooth process. Young adults and adolescents often do not receive routine preventative care and are not directed on how to obtain adult or transitional care. In a study reviewing the number of contacts with a primary care provider over a two-year period Johansen and Niforatos (2021) observed a decrease in care contact between the ages of 18-39. Adolescent patients demonstrate gaps in preventative care with a gap extending longer than a year prior to seeing another provider (Wisk et al., 2015). This lack of preventative care impacts physical wellbeing as well as mental health. Adolescents and young adults without a primary care provider have a higher risk for hospital admissions related to mental health. Conversely, improved mental health is seen in those who have continuity with a provider during this transition (Toulany et al., 2019). Similar to the trends identified in the mother-infant dyad

articles, the adolescents and young adults who are of a lower socioeconomic status have longer gaps between preventative care visits than their higher socioeconomic status counterparts.

Barriers

Parsons & Artherton (2021) studied barriers to preventative care including work constraints, family and childcare issues, and transportation issues. These reasons are exacerbated among individuals with lower socioeconomic status, those who have mental and physical diagnoses, and in patients under 21 years of age. They found a decrease in missed preventative visits for children born to working mothers, both who receive and do not receive government assistance. Holl et al. (2012) reported that children of mothers who work, regardless of association with government assistance, were also less likely to obtain preventative care. A more recent study found children who are covered by Medicaid benefits are more likely to have fewer well child visits and are more likely be seen in a Family Practice setting (Wasserman et al., 2019). The number of children in a family also impacts the preventative care visits; more children in the family leads to greater declines in preventative care (Holl et al., 2012).

Conversely, if parents are receiving preventative care themselves, children are more likely to receive this care as well; this includes single parent homes as well as two parent homes (Angier et al., 2022).

Continuity of Care

The benefits of continuity of care among patients and their families have also been identified. Researchers found that pediatric patients with asthma who had an identified primary care provider were less likely to be hospitalized due to an exacerbation (Utidjian et al., 2017). In addition to patients with physical health conditions, those who have mental health concerns, including ADHD, have benefited from regular visits with general practice providers; these

patients are hospitalized less due to mental health reasons and have fewer stimulants prescribed (Mueller et al., 2022). Continuity of care also benefits pediatric patients with acute health issues. The higher the level of continuity and greater the trust in a provider, the more likely parents are to complete the plan of care for an upper respiratory infection (Brookes-Howell et al., 2013). Not only was it demonstrated that continuity of care benefits patients' health outcomes, but in a study conducted in Germany, researchers found 45.6% of the population surveyed preferred continuity of care, with their families being cared for by the same provider (Kalitzkus et al., 2021). This was more prevalent among households with lower incomes, as well as those who were married or had larger families (Kalitzkus et al., 2021). Continuity of care can also reduce the costs of health care overall. In Canada, a 1% increase in attachment to a provider demonstrated a significant reduction in health care costs (Hollander & Kadlec, 2015).

Based on the information, increasing the number of pediatric patients seen at EAFP may not only benefit the pediatric population, but also those transitioning from pediatrics to adulthood, as well as their parents/caregivers. The practitioners at EAFP are uniquely positioned to provide care across the lifespan, offering care to parents and children at the same visit; thereby increasing the number of preventative visits for the entire family. This could eliminate barriers associated with work constraints, transportation, and childcare needs. Additionally, transitions from pediatric care to adult care would be improved since family practitioners provide care across the entire lifespan; children can remain with their provider when they are adults as well. Finally, EAFP can provide appropriate education and care to the Roseville population who are on Medicaid, other than vaccines until VFC vaccines can be provided within the office.

Organizational Assessment

A SWOT analysis of EAFP was completed to determine the strengths and weaknesses associated with providing care for pediatric patients within a family practice office. Given the inability to find specific protocols within EAFP itself at the time of the SWOT analysis, Corewell Health as an organization, was looked at for policies related to outpatient pediatric visits. Most of the policies were specifically related to Corewell Health's Teen and Adolescent Care Centers which provide care through school clinics for teens as well as younger children depending on the location.

The strengths for pediatric care at EAFP include: (1) access through Corewell Health to Vaccines for Children (VFC), an immunization program for children who have no insurance or are insured by Medicaid; (2) access to pediatric specialties such as neurology, urology, epidemiology, surgery, and pulmonology; and (3) access to the Corewell Health Hospital network for pediatric inpatient care if a child requires hospitalization. These pediatric units provide continuity of care within the system as well as ease of access to the records from hospital stays for the primary care provider. Additional strengths include eagerness and willingness of providers within EAFP to care for children, as well as the hiring of two new providers for the purpose of expanding the patient population. EAFP providers have experience working with children and routinely keep up to date with specialty care through pediatric and adult related continuing education.

The weaknesses for EAFP related to providing pediatric primary care include not being able to provide everything traditionally incorporated in a pediatric wellness visit, including: (1) administering vaccines to Medicaid patients, as EAFP is not currently part of the locations within Corewell that participate in VFC, (2) not having the ability to complete routine screenings in the

office, and (3) no designated pediatrician, which may be a barrier for parents/guardians wanting a provider specialized in pediatrics. Additional weaknesses include a lack of same day appointments and possible decreased awareness of the availability of pediatric care services within EAFP.

Opportunities for EAFP to increase pediatric patients include the ability to establish a medical home for the Roseville pediatric population covered by Medicaid by providing a family focused environment with care for the entire family at one visit. EAFP can join VFC through Corewell Health's established process, which will allow EAFP to expand their vaccine administration to include their Medicaid population; thus, providing a better medical home for the Medicaid population. For those parents who wish to keep their children within the Corewell Health system an additional opportunity for EAFP includes having only four general pediatric offices within the entire system; the closest designated pediatric office to Roseville is the Internal Medicine & Pediatric office in Royal Oak which is a combined pediatric and adult practice. The only pediatric practices focusing only on children are located more than 20 miles away from this population. This provides the opportunity for EAFP to provide care to families who wish to keep their children within the Corewell Health system.

The biggest threat to EAFP providing care for children is that there are more than forty pediatric providers within ten miles of EAFP. Having such a large number of pediatric providers in a small geographic area could hinder the ability of EAFP to increase the number of pediatric patients.

Problem Statement and Goals

For the last several years there has been a reduction in the number of pediatric visits to family practices and an increase in the amount of care being provided by pediatricians;

additionally, there has been a decrease in the number of pediatric visits to healthcare providers overall (Wasserman et al., 2019). While there is ample literature describing the decrease in the pediatric population receiving healthcare, there is a lack of discussion as to the reasons behind the reduction. The needs assessment completed for the population of patients seen at EAFP with children, or who are of childbearing age, will provide necessary information to potentially increase the number of pediatric patients receiving care, improve the experience of child visits at EAFP, and improve the healthcare of families in the community. The assessment will provide insight for EAFP into what the families are looking for regarding pediatric health care and what barriers may be preventing them from seeking this care at a family practice office. The information will allow EAFP to determine if families are interested in the provision of pediatric care within the family practice clinic, and what might be implemented to increase the pediatric patient base. The four goals of this needs assessment are:

- 1. Determine what parents want in a primary care provider for their children.
- 2. Determine why parents who do bring their children to EAFP utilize the practice for their child's primary care.
- Determine what barriers might exist for families in seeking care for their children at EAFP.
- 4. Determine what portion of the patient population at EAFP have Medicaid coverage and are currently unable to obtain vaccines through the practice.

These goals will be accomplished by inviting parents with children, or individuals of childbearing age who currently receive care at EAFP to complete the needs assessment survey. Participants will be asked to complete the survey within one month; data will then be compiled

and analyzed. Following completion of the analysis a plan will be developed for improving pediatric experiences and increasing the number of pediatric patients seen in the office.

Theoretical and Conceptual Framework

Witkin's three phase needs assessment model of preassessment, assessment, and post-assessment, will guide the methods of this project. (Witkin & Altschuld, 1995). The preassessment focuses on the purpose of the project, finding the current evidence and the area of need. The assessment phase pertains to gathering data, determining priorities, and summarizing the information. Finally, the post-assessment focuses on using the information gathered to make informed decisions, and future actions or plans, followed by the release of the results (Witkin & Altschuld, 1995). The purpose of this needs assessment is to determine the needs for families regarding pediatric health care, as well as what barriers exist (if any) preventing them from obtaining this care. The needs assessment will also provide EAFP with knowledge regarding their current structure of pediatric care, what is working for the current population, and what needs to be changed to improve the care provided; thus, allowing the office to prioritize ways to improve and in turn increase pediatric visits.

Method and Design

Implementation Plan

This needs assessment was implemented by an interdisciplinary team comprised of medical assistants (MA), the office manager, a family nurse practitioner (FNP), and a physician. The team determined which patients within EAFP were of childbearing age (between 18 and 45 years of age), as well as which families within the practice had children between the ages of 0 to 12 years of age. Once the eligible patient list was compiled, the patients and/or the caregivers of the pediatric patients received a survey through their patient portal and/or via mail. Surveys

completed via the patient portal were automatically submitted for analysis. Those that were mailed were accompanied with a preaddressed envelope for the survey to be returned, as well as a web address to complete the survey online. The online survey was hosted on LimeSurvey, which provides individual tokens/web addresses that can only be utilized once to prevent duplicate responses. The mailed surveys contained an individual token matching that sent via the patient's portal, allowing for the opportunity to complete the survey either on paper or online. Both methods, paper and MyChart messages for the survey, included documentation informing the eligible participants that their responses would remain entirely anonymous. Surveys received via mail were cross referenced with surveys completed online to assure there were no duplicates. Participants received a reminder via mail and/or EHR two weeks after the initial contact to complete the survey if they have not already done so.

Ethical Consideration

Ethical considerations were addressed throughout completion of the needs assessment surveys. All submitted surveys were anonymous without the possibility of participant identification. Surveys sent through the patient portals did not collect or maintain any identifying participant information. LimeSurvey allowed for the removal of the association of answers from the tokens making the process anonymous. Tokens were tracked to prevent duplicate responses, but tokens were not linked to participant identifiers. Therefore, all survey responses – both electronic and mailed – contained deidentified data only. Prior to implementation of the needs assessment, the project was submitted to the Institutional Review Board (IRB) for approval to both Corewell Health and the University of Detroit Mercy. The needs assessment received exempt status from both Corewell Health IRB and University of Detroit Mercy IRB.

Evaluation Methods

Data from both the electronic and mailed in responses were combined and reviewed by the interdisciplinary team. This included reviewing the feedback provided for suggestions among the participant responses, determining the portions of respondents with commercial vs Medicaid insurance coverage, as well as vaccination status. Once the suggestions were reviewed, the data was further analyzed to determine if there were any reoccurring suggestions, enabling the team to discuss if the data could be coalesced into themes. The data was further analyzed utilizing Intellectus Statistics to complete a Chi square analysis and Fisher test to determine if there is correlation between vaccination compliance and the insurance coverage as well as a correlation between seeing a provider at EAFP and insurance coverage. Once the results were analyzed, the interdisciplinary team reviewed the results to determine the next steps for improving the pediatric care experience and reducing barriers to obtaining care at EAFP.

Sustainability and Implications for Practice

For this needs assessment to be relevant, it will be necessary for EAFP to consider the results of the assessment and utilize the information to discover ways to improve the pediatric experience at the office and increase the number of children who are seen in the practice. The implications of this needs assessment will be to improve the quality of pediatric care and decrease the challenges of transition of care. This may also increase the number of pediatric patients that are receiving regular preventative care, yielding a reduction in the number of ER and urgent care visits by children. Bringing more children into EAFP can also increase the number of parents/caregivers who are receiving preventative care as it would allow for the practice to provide care to the parent/caregiver-child dyad and/or triad at one visit. Finally, with the implementation of any new policies or procedures following the results of the needs

assessment the success of the policy or procedure will need to be assessed and analyzed to determine if it is truly beneficial to the population and practice.

Results

There were 3500 needs assessment surveys sent to EAFP patients with a total of 41 responses received. Of the 41 responses received 30 were completed online while 11 were received via mail. Overall, this needs assessment had a response rate of 1.2%. Demographic data collected included age, race/ethnicity, children/no children in the household, and relationship of respondent to the child(ren). The majority of respondents were between 41-50 years and 31-35 years. Most respondents completing the survey had children (n = 31), while 10 did not. The respondents who indicated they do not have children were removed from the remainder of the analysis. The most common ethnicity of respondents was White (n = 22) followed by Black or African American (n = 3). Eighteen respondents had two children, the most common number of children per respondent. The frequency of age group of children was also analyzed. The most frequent age group was 5-10 years with 17 total children in this group followed by 0-4 years with 16 children, 15-18 years with 13 children, and 11-14 years with nine children. Of the respondents, the relationship to child was most commonly Mom (n = 24).

Table 1: Respondent age and parental status

Variable	n
age	
36-40	7
41-50	13
31-35	13
21-25	2
26-30	6
Do you have a child/children	
Yes	31

No 10

Table 2: Demographics and healthcare habits

Variable	n
ethnicity	
Black or African American	3
White	22
Asian or Pacific Islander	2
Other	1
Hispanic or Non-Hispanic	1
White Black or African American	1
Native American	1
Number of children	
4	1
3	3
2	18
5	2
1	7
Relationship with child(ren)	
Mom	24
Dad	5
Other	1
Stepparent	1
Child child(ren)'s insurance coverage	
Medicaid and/or Healthy Kids	6
Blue Cross Blue Shield Michigan	10
Priority Health	4
Blue Care Network	3
Other	1
HAP	1
Medicaid and/or Healthy Kids and priority health	1
Meridian Medicaid	2
Medicaid and/or Healthy Kids, United Healthcare	1
Commercial	1
Does your child(ren) attend all recommended well child visits wit provider	h a
Yes	30
	· -

Unknown	1
Is East Area Family Practice your PCP	
No	20
Yes	9
Child 1 up to date on vaccines	
Yes	25
No	2
Child 3 up to date on vaccines	
Yes	6
If EAFP is not your child's PCP did you know EAFP provides care	for
children	
No	11
Yes	7
Unsure	1
If your child's PCP is not EAFP would you switch knowing EAFP provides care for children	
No	15
Yes	3

Figure 1: Ethnicity of Respondents



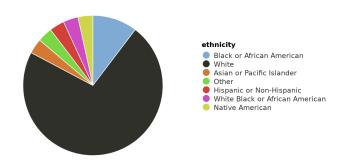


Figure 2: EAFP as the PCP

EAFP as the PCP

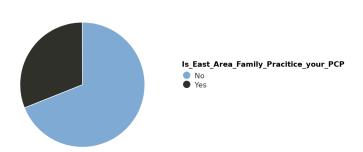
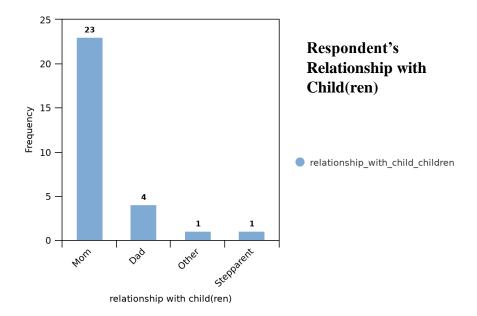


Figure 3: Respondent's Relationship with Child(ren)



The next analysis completed was regarding the general health information of the child including insurance provider, if well visits are attended, sick visits, and vaccination status. The most common insurance provider for the children of respondents was Blue Cross Blue Shield of Michigan (n = 10) followed by Medicaid and/or Healthy Kids (n = 6). When the insurance coverage was categorized as Commercial or Medicaid it yielded Commercial (n = 19) and Medicaid (n = 10). Thirty respondents report their children attend all recommended well child

visits. Respondents were also asked if their child's Primary Care Provider is at EAFP, responses were most frequently No (n = 20) followed by Yes (n = 9).

Figure 4: Insurance Coverage for Child(ren)

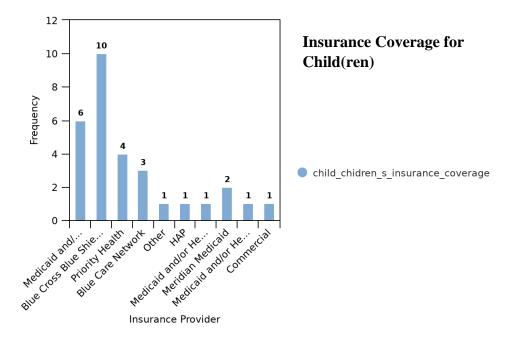
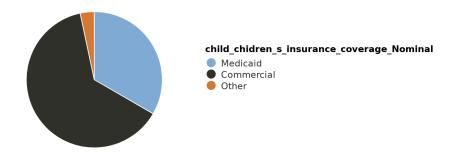


Figure 5: Insurance Coverage Medicaid vs Commercial

Insurance Coverage Medicaid vs Commercial



In regard to vaccine status, the participants were given an opportunity to list up to three of their children to state if they were fully vaccinated or not. The most frequent response for child number one being up to date was Yes (n = 25). For child number two being up to date on vaccines, the most frequent response was Yes (n = 17). Additionally, a Chi-square analysis was completed to determine if there was any significance to child one being vaccinated or not when compared to the insurance coverage for the child among the respondents. The Chi-square yielded p = 0.901 which is considered not significant based on the responses received, a Fisher test was also completed as this is more accurate in small sample sizes, which also showed no significance with p = 1.000.

Table 3: Child Vaccination Status

Variable	n	%
child_1_up_to_date_on_vaccines		
Yes	25	80.65
No	2	6.45
child_2_up_to_date_on_vaccines		
Yes	17	54.84
No	2	6.45
Unknown	1	3.23
child_3_up_to_date_on_vaccines		
Yes	6	19.35
Note. Due to rounding errors, percenta	iges may not equa	ıl 100%.

Figure 6: First Child's Vaccination Status

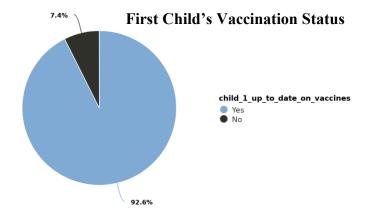


Table 4: Chi Square Child 1 Vaccination Status Compared to Insurance Coverage

Chi-square table Child 1 vaccination status compared to insurance coverage.

	child_1_up_to_date_on_vaccines				
Child children's insurance coverage Nominal	Yes	No	χ^2	df	p
Medicaid	9[9.26]	1[0.74]	0.21	2	.901
Commercial	15[14.81]	1[1.19]			
Other	1[0.93]	0[0.07]			

Note. Values formatted as Observed[Expected].

Twenty-seven participants reported that their child(ren) see a provider when sick. Of the respondents who state they take their child to a provider for sick visits, the most common reasons for sick visits were fever, congestion, rash, and sore throat. The most frequent site patients report taking their child(ren) to when sick is their PCP.

Table 5: Sick Visit Habits

Variable	n
Does your child(ren) see a provider when sick	
Yes	27
No	2
See provider when sick for fever	

Yes	21
See provider when sick for rash	
Yes	12
See provider when sick for congestion	
Yes	17
See provider when sick for sore throat	
Yes	11
See provider when sick for ear pain	
Yes	9
Reason to see provider when sick: other Comment	
Wellness	1
Chipped/discolored tooth	1
Crohn's, sinus infection	1
Cough, cold	1
HTN ADHD, ADD	1
swelling	1
See provider when sick Other	
Yes	3
The most frequent site you take your child to when sick	
Primary Care Provider	23
Urgent Care	3
er, primary care, urgent care	1
urgent care, primary care	1
When your child(ren) is sick where do you most commonly take your	
child(ren) to see a provider choose the most frequent site you use	
Comment	4
ER if it's been over a week and the symptoms are severe	1
We call the pediatrician. Sometimes they will have us schedule an appointment, other times the pediatrician will just give us a regiment using OTC medication.	1
Of course it would depend on the severity of the sickness and whether or not the doctor advises to seek further treatment at an urgent care or ER.	1

Figure 7: Reasons for Sick Visits

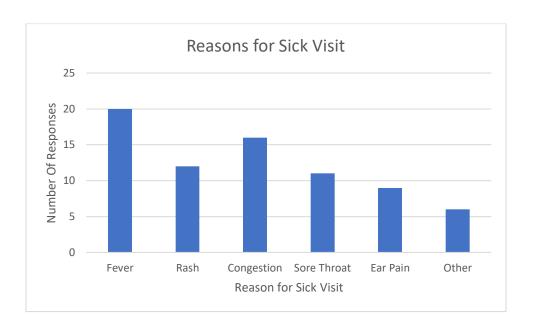


Figure 8: Sick Visit Sites

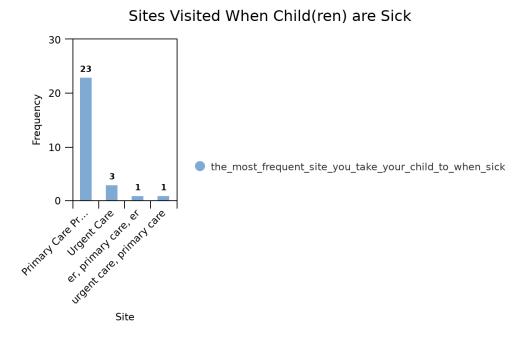
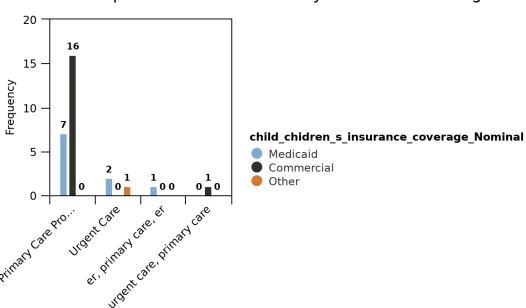


Figure 9: Sick Visit Site vs Insurance Coverage



Most Frequent Site for Sick Visit by Insurance Coverage

EAFP patient's responses n = 9

The next analyses discussed were completed with only EAFP primary care patient respondents with a sample size of nine. The first analysis of EAFP patients completed was a more in-depth evaluation of the EAFP population and their insurance coverage. The question is EAFP your PCP was analyzed filtering out for commercial vs Medicaid insurance coverage. Of those participants who stated that EAFP is their PCP six are covered by Medicaid, whereas three are covered by Commercial Insurance.

Table 6: Insurance Coverage for EAFP Patient's

Insurance Coverage for Participants Who Utilize EAFP as PCP

Site

Variable	n
Child(ren) insurance coverage Nominal	
Medicaid	6

Commercial 3

Figure 10: Insurance Coverage for EAFP Patient's

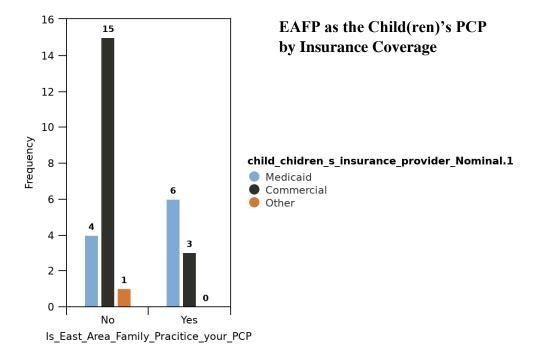


Table 7: Chi-Square EAFP PCP vs Insurance Coverage

Chi-Square Table EAFP PCP related to Insurance Coverage

	Is East Area Family P PCP			
Child children's insurance provider	No	Yes	$\chi^2 rac{d}{f}$	p
Medicaid	4[6.90]	6[3.10]	6.11 2	.047
Commercial	15[12.41]	3[5.59]		
Other	1[0.69]	0[0.31]		

Note. Values formatted as Observed [Expected].

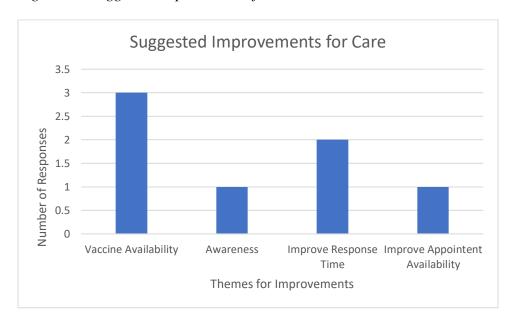
Respondents who see EAFP as their PCP were asked how they learned that EAFP cares for children. The Corewell Health website and working at the office were each identified as a source of learning EAFP provides care to children by one respondent each. These participants

were also asked what EAFP can do to improve visits for children. The most frequent recommendation for improvement was vaccine availability (n=3).

Table 8: Recommendations for Improvement

Variable	n
Learned EAFP provides care to children from Corewell Health website	
Yes	1
Learned by Other: Comment	
work at office	1
What EAFP can do to provide better care to children Improve appointment availability	
Yes	1
What EAFP can do to provide better care to children Offer vaccine administration	
Yes	3
What EAFP can do to provide better care to children Improve response time from providers	
Yes	1

Figure 11: Suggested Improvements for Care



PCP other than EAFP respondents n = 20

The remainder of the analyses performed were completed using only the surveys completed by participants who do not have an EAFP provider as their PCP for their child (n = 20). Of those who do not see EAFP for primary care 11 reported they did not know EAFP provides care for children while seven reported they were aware of this. Upon learning EAFP provides care to children, 15 of the respondents stated they would not be willing to switch to EAFP for primary care while three reported they would switch. Only 15 participants provided a reason why they would not be willing to switch their PCP. The most frequent reason given as to not switching was good rapport with current provider (n = 8) followed by distance from home (n = 8) appointment availability (n = 2).

Table 9:Resopndent's Indication of Switching PCP

Variable	n
Is there anything East Area Family Practice can do to encourage you	u to
switch your child's primary care to our office	
same office since birth, good rapport with provider and office	1
No	3
will try, depends on mother	1
Awareness	1
Is there something East Area Family Practice does that stops you frobringing your child to our office for visits	om
No	6
child is 18	1
children reside in another household	1
If your child's PCP is not EAFP would you switch knowing EAFP provides care for children	
No	15
Yes	3
Knowing EAFP provides care to children would you switch Why or	why

Knowing EAFP provides care to children would you switch Why or why not Comment

Currently a patient there.

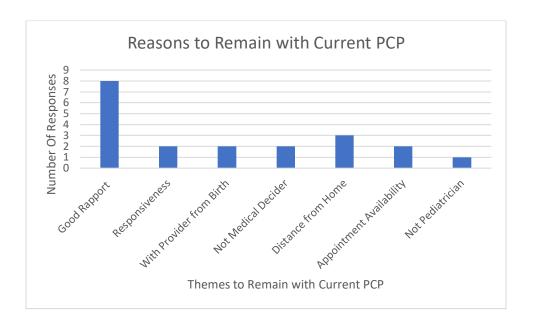
1

Note. Due to rounding errors, percentages may not equal 100%.

Table 10: Reasoning Behind Remaining with or Chancing PCP

Variable	n
Would or would not change due to appointment availability	
Yes	1
Would or would not change due to Insurance	
Yes	1
Would or would not change due to Provider response time	
Yes	1
Would or would not change due to Other	
No	10
Yes	3
Distance from home comment	
not close to our home	1
Would or would not change due to Distance from home	
Yes	3
No	1
Other comment	
I'm not sure it's pretty hard to get an appointment with my doctor so I	
can't imagine how hard it would be to get an appointment for my kids in a slighted emergency situation.	1
We like our current pediatrician	1
Not pediatrician	1
good rapport with provider, only switch if experience problems.	1
Note. Due to rounding errors, percentages may not equal 100%.	

Figure 12: Reasons To Remain with Current PCP



Discussion

When analyzing the results of this needs assessment survey it is imperative to consider the response rate as well as the population that participated. There was an overall low response rate of 1.2%. The majority of respondents (n = 22) self-identified as white, and 19 respondents carried commercial insurance coverage. Only 10 of the participants reported having Medicaid insurance coverage for their children. Given the low response rate the information provided by the survey responses does not demonstrate the barriers/concerns of EAFP's patient population. Rittase et al. (2020) suggest that minorities, low income, and those with lower levels of education who are eligible to participate in a survey are less likely to complete it; considering the population in the Roseville area, and the known EAFP population this may have contributed to the response rate.

In this small sample, even after learning EAFP provides care to children, the most common reason given by participants for staying with the current provider was the rapport that children have built with their current practice. These findings are congruent with the results of

research conducted by Kalitzkus et al. (2021) who found that continuity of care is important for patients' positive healthcare experience. This information can be utilized by EAFP to investigate whether increased patient awareness of pediatric availability at the practice would lead to an increase of current families, who are planning to have or are currently expecting children, to establish primary care for those dependents. Another reason survey respondents reported a preference to stay with their current pediatric practice was that EAFP does not have a specialized pediatric provider. The family practice providers at EAFP, however, do keep up with the continuing education requirements for both adults and children, and this could be communicated to current EAFP patients which may increase their comfort with pediatric care provided by family practice providers.

The recommendation for EAFP is for the multidisciplinary team to conduct further assessment to pinpoint the specific needs of families with children to improve the pediatric experience and increase the pediatric population. Further investigation into these suggestions can be accomplished by implementing additional surveys. It may be more beneficial, to ask patients to fill out the surveys while they are present at the office and place them into a drop box to keep anonymity. Inclusion criteria should be narrowed by creating a separate survey for each targeted group: current pediatric patients, patients who are pregnant or planning to have children, and those with children under the age of 1 year. If the multidisciplinary team elects to implement another electronic survey, consideration should be given to a survey without a unique login or identifier for ease of distribution and ability to provide additional reminders. The new surveys will need to include more open-ended questions regarding what the eligible participants are looking for in the pediatric health care experience for their children, what EAFP does well in providing patient care, and what can be improved. An additional survey targeting the

parents/guardians of children who do not have a PCP at EAFP will be needed to determine what they like having or wish they had for their pediatric health care experience as well. This would provide EAFP with more data to determine significant suggestions among the results. It will also provide information from the potential pediatric patient base rather than mostly receiving information from those who are content with their current pediatricians.

Despite the lack of significance in survey result findings, the multidisciplinary elected to start the process to join VFC as it was determined that Corewell Health's plan is to implement VFC in all outpatient offices. The EAFP estimated eligibility for patient participation in the VFC program for both VFC eligible and non VFC eligible patients. The estimation for VFC eligible patients found 182 patients under 18 with Medicaid coverage, 102 of which are overdue for their immunizations. The non VFC eligible patients estimate under the age of 18 is 59 patients.

Despite the needs assessment findings not supporting the decision to join the VFC program, is supported by studies suggesting the difficulty the population covered by Medicaid has scheduling appointments with providers and the decline in reported VFC participation ((Hsiang et al., 2019), (Shen et al., 2021)).

Implementation of VFC may not only improve the patient experience, it may also be beneficial to the local Medicaid population, as well as having a potential financial benefit for EAFP. According to a retrospective study utilizing the Michigan Immunization Registry, the number of sites participating in VFC declined by 12.6% between 2018 and 2020 (Shen et al., 2021). This decrease supports EAFP's decision to expand the availability of vaccines for Medicaid patients. Yarnoff et al. (2019) reported that even if family medicine offices receive the minimum commercial insurance or Medicaid payment for vaccinations, they still retain a positive income. According to Hu et al. (2016), Michigan is one of the states participating in pay

for performance with Medicaid that provides incentives for childhood immunizations, providing further financial support for the office participating in VFC.

While the CDC (2024) states there is no cost to participate in the VFC program, there are some potential costs EAFP must consider. EAFP will need to obtain a new refrigerator that meets the VFC program requirements to keep the immunizations separate from those for privately insured patients. According to the Michigan VFC provider manual, at least two staff members must be kept up to date on the required VFC training, and staff will need to keep twice daily temperature and daily vaccine supply logs (Michigan Department of Human Health Services, 2023). Wasting vaccines can also financially impact EAFP. If VFC immunizations are drawn up and not administered, are administered to an ineligible patient, or the vaccines in stock expire, EAFP would be responsible for replacing the lost vaccines from their private immunization supply (Michigan Department of Human Health Services, 2023). Thus, EAFP would be responsible for the vaccination cost. Due to the requirement of replacing vaccines, it will be imperative that EAFP remain diligent about tracking the number of vaccines available, clearly identifying expiration dates, and verifying patients' eligibility for VFC vaccines. After a review of the financials, the multidisciplinary team has determined that EAFP will be able to maintain program requirements with the current office staffing, rendering no additional cost for maintaining the VFC program, provided there is minimal vaccine waste. However, in the future, EAFP will need to evaluate whether participation in VFC has substantially increased the pediatric population seen at their office, as well as the income vs incurred cost following VFC implementation, to determine if the program beneficial to the office.

The multidisciplinary team also decided to address appointment availability, which was given as a reason participants would not change their child's care from their current pediatrician

to EAFP. To address this issue, the team chose to focus on acute care visits. While this choice was not a direct result of the data, it was determined to be a benefit to the stakeholders (EAFP patients and the providers). Enhanced acute care availability could be achieved by ensuring each provider has multiple same day appointments available every day. In addition, it was determined that an educational session for the scheduling staff would be necessary in order to provide an understanding of the type of patient that should be scheduled for same day appointments. A PowerPoint presentation was developed by the multidisciplinary team to provide education regarding scheduling for the ancillary staff during a working lunch. These staff members will also be provided with a flow chart to determine if the patient calling is appropriate for a same day appointment. Following implementation of this educational program, the multidisciplinary team will use a follow-up survey to evaluate whether these changes provided an improved patient experience.

Given that 11 respondents were not aware that EAFP provides care to children, the multidisciplinary team is considering ways to increase awareness of this service with the intention of making this clear to their potential patient base. Awareness could be increased by incorporating brochures or posters throughout the office and waiting room that are directed towards child primary care. However, given there were no significant findings on this topic in the survey, there is no guarantee this strategy would increase the number of pediatric patients accessing care at EAFP. If EAFP implements an awareness campaign, evaluation of this strategy would need to be implemented to determine effectiveness.

Limitations

The first and most significant limitation to this study was the low response rate. The low response rate could have been due to multiple factors including the broad inclusion criteria for

who received the survey and difficulty for potential participants to access the survey. To ensure inclusion of parents/guardians of children who attend other pediatric offices for primary care, the survey was sent to all adults 18-45 because there is no way to identify only those who have children; this rendered a broad criterion for receiving the survey despite the unlikelihood every recipient would be eligible to participate. The unique access code and lack of receiving the survey invitation may have contributed to the difficulty accessing the survey. LimeSurvey can send unique links/access codes directly to survey recipients if their contact information is put directly into LimeSurvey for distribution, however, due to HIPAA that was not possible for this study; therefore, the unique identifier/access code was hand-typed into the patients' letter/EHR, leaving the possibility of inaccurate unique codes preventing access to the survey. Additionally, recipients may not have received the invitation to participate due to multiple paper surveys having been returned to the office due to inaccurate addresses in the patients' charts and a potential inability to access EHR regularly.

While anonymity was specified within the survey information it is possible that patients were skeptical and therefore reluctant to respond. Lack of staff members available to write the letters/messages and send them out during "down time" in their day extended the time needed to distribute the survey. Since there was no staff or time dedicated to deploying the survey, distribution was cumbersome due to the unique code requiring each recipient to receive an individualized letter/message preventing mass distribution; this rendered the inability to send additional reminders upon receiving limited responses. Another limitation was that while distribution of the survey was completed over several months, it was sent to a fixed list of patients without incorporation of new patients who established care at EAFP during this timeframe.

Conclusion

Despite a low response rate, the needs assessment provided some insight into how EAFP can improve the pediatric experience within the office, potentially leading to an increase in the pediatric population. The findings suggested topics EAFP has considered investigating including vaccine availability, increased appointment availability, provider response time, and pediatric care awareness. Given the difficulty Medicaid covered patients have finding providers that are able to work with their insurance and their propensity to utilize family practice providers, providing vaccines for the Medicaid population would improve the experience for this population ((Hsiang et al., 2019), (Wasserman et al., 2019)). Further investigation into these suggestions should be conducted to determine if there would be any significant benefit to making these changes. Moving forward the EAFP multidisciplinary team will need to do a follow up evaluation to determine if participation in the VFC program will remain beneficial.

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List of Tables

Table 1: Respondent age and parental status

Variable	n	%
age		
36-40	7	17.07
41-50	12	29.27
31-35	12	29.27
21-25	2	4.88
26-30	6	14.63
Do you have a child/children		
Yes	29	70.73
No	10	24.39

Table 2: Demographics and healthcare habits

Variable	n	%
ethnicity		
Black or African American	3	9.68
White	21	67.74
Asian or Pacific Islander	1	3.23
Other	1	3.23
Hispanic or Non-Hispanic	1	3.23
White Black or African American	1	3.23
Native American	1	3.23
Number of children		
4	1	3.23
3	3	9.68
2	16	51.61
5	2	6.45
1	7	22.58
Relationship with child(ren)		
Mom	23	74.19
Dad	4	12.90
Other	1	3.23
Stepparent	1	3.23
Child shild(ron)'s insurance severage		

Child child(ren)'s insurance coverage

Medicaid and/or Healthy Kids	6	19.35
Blue Cross Blue Shield Michigan	10	32.26
Priority Health	4	12.90
Blue Care Network	3	9.68
Other	1	3.23
HAP	1	3.23
Medicaid and/or Healthy Kids and priority health	1	3.23
Meridian Medicaid	2	6.45
Medicaid and/or Healthy Kids, United Healthcare	1	3.23
Commercial	1	3.23
Does your child(ren) attend all recommended well child visits with a		
provider		
Yes	30	96.77
Unknown	1	3.23
Is East Area Family Practice your PCP		
No	20	64.52
Yes	9	29.03
Child 1 up to date on vaccines		
Yes	25	80.65
No	2	6.45
Child 3 up to date on vaccines		
Yes	6	19.35
If EAFP is not your child's PCP did you know EAFP provides care for		
children		
No	11	35.48
Yes	7	22.58
Unsure	1	3.23
If your child's PCP is not EAFP would you switch knowing EAFP provides care for children		
No	15	48.39
Yes	3	9.68
<i>Note</i> . Due to rounding errors, percentages may not equal 100%.		

Table 3: Child Vaccination Status

Variable	n	%
child_1_up_to_date_on_vaccines		
Yes	25	80.65

No 2 6.45 Unknown 1 3.23 child_3_up_to_date_on_vaccines	No	2	6.45
No 2 6.45 Unknown 1 3.23 child_3_up_to_date_on_vaccines	child_2_up_to_date_on_vaccines		
Unknown 1 3.23 child_3_up_to_date_on_vaccines	Yes	17	54.84
child_3_up_to_date_on_vaccines	No	2	6.45
•	Unknown	1	3.23
Yes 6 19.33	child_3_up_to_date_on_vaccines		
	Yes	6	19.35

Note. Due to rounding errors, percentages may not equal 100%.

Table 4: Chi Square Child 1 Vaccination Status Compared to Insurance Coverage

Chi-square table Child 1 vaccination status compared to insurance coverage.

	child_1_up_to_date_on_vaccines				
Child children's insurance coverage Nominal	Yes	No	χ^2	df	p
Medicaid	9[9.26]	1[0.74]	0.21	2	.901
Commercial	15[14.81]	1[1.19]			
Other	1[0.93]	0[0.07]			

Table 5: Sick Visit Habits

Variable	n	%
Does your child(ren) see a provider when sick		
Yes	27	87.10
No	2	6.45
See provider when sick for fever		
Yes	21	67.74
See provider when sick for rash		
Yes	12	38.71
See provider when sick for congestion		
Yes	17	54.84
See provider when sick for sore throat		
Yes	11	35.48
See provider when sick for ear pain		

Yes	9	29.03
Reason to see provider when sick: other Comment		
Wellness	1	3.23
Chipped/discolored tooth	1	3.23
Chrons, sinus infection	1	3.23
Cough, cold	1	3.23
HTN ADHD, ADD	1	3.23
swelling	1	3.23
See provider when sick Other		
Yes	3	9.68
The most frequent site you take your child to when sick		
Primary Care Provider	23	74.19
Urgent Care	3	9.68
er, primary care, urgent care	1	3.23
urgent care, primary care	1	3.23
When your child(ren) is sick where do you most commonly take your		
child(ren) to see a provider choose the most frequent site you use		
Comment		
ER if it's been over a week and the symptoms are severe	1	3.23
We call the pediatrician. Sometimes they will have us schedule an		
appointment, other times the pediatrician will just give us a regiment using OTC medication.	1	3.23
Of course it would depend on the severity of the sickness and whether or not the doctor advises to seek further treatment at an urgent care or ER.	1	3.23
Note. Due to rounding errors, percentages may not equal 100%.		

Table 6: Insurance Coverage for EAFP Patient's

Insurance Coverage for Participants Who Utilize EAFP as PCP

Variable	n	%
Child(ren) insurance coverage Nominal		
Medicaid	6	66.67
Commercial	3	33.33
Other	0	0.00

Note. Due to rounding errors, percentages may not equal 100%.

Table 7: Chi-Square EAFP PCP vs Insurance Coverage

Chi-Square Table EAFP PCP related to Insurance Coverage

	Is East Area Family Practice your PCP			
Child children's insurance provider	No	Yes	$\chi^2 \frac{d}{f}$	p
Medicaid	4[6.90]	6[3.10]	6.11 2	.047
Commercial	15[12.41]	3[5.59]		
Other	1[0.69]	0[0.31]		

Table 8: Recommendations for Improvement

Variable	n	%
Learned EAFP provides care to children by calling		
Yes	0	0.00
Learned EAFP provides care to children from Corewell Health website		
Yes	1	11.11
Missing	8	88.89
Learned by Other: Comment		
work at office	1	11.11
What EAFP can do to provide better care to children Improve appointment availability		
Yes	1	11.11
What EAFP can do to provide better care to children Offer vaccine administration		
Yes	3	33.33
What EAFP can do to provide better care to children Improve response time from providers		
Yes	1	11.11
Note. Due to rounding errors, percentages may not equal 100%.		

Table 9:Resopndent's Indication of Switching PCP

Variable	n	%
Is there anything East Area Family Practice can do to encourage you to switch your child's primary care to our office		
same office since birth, good rapport with provider and office	1	3.23

No	3	9.68
will try, depends on mother	1	3.23
Awareness	1	3.23
Is there something East Area Family Practice does that stops you from		
bringing your child to our office for visits		
No	6	19.35
child is 18	1	3.23
children reside in another household	1	3.23
If your child's PCP is not EAFP would you switch knowing EAFP provides care for children		
No	15	48.39
Yes	3	9.68
Knowing EAFP provides care to children would you switch Why or why		
not Comment		
Currently a patient there.	1	3.23
Note. Due to rounding errors, percentages may not equal 100%.		

Table 10: Reasoning Behind Remaining with or Chancing PCP

Variable	n	%
Would or would not change due to appointment availability		
Yes	1	3.23
Would or would not change due to Insurance		
Yes	1	3.23
Would or would not change due to Provider response time		
Yes	1	3.23
Would or would not change due to Other		
No	10	32.26
Yes	3	9.68
Distance from home comment		
not close to our home	1	3.23
Would or would not change due to Distance from home		
Yes	3	9.68
No	1	3.23
Other comment		
I'm not sure it's pretty hard to get an appointment with my doctor so I can't imagine how hard it would be to get an appointment for my kids in a slighted emergency situation.	1	3.23

We like our current pediatrician	1	3.23
Not pediatrician	1	3.23
good rapport with provider, only switch if experience problems.	1	3.23
<i>Note.</i> Due to rounding errors, percentages may not equal 100%.		

Table 11: Sick site visit compared to insurance coverage

Chi-square table for sick visit site compared to insurance coverage

		Child(ren)'s insurance coverage Nominal				
The most frequent site you take your child to when sick	Medicaid	Commercial	Other	χ^2	df	p
Primary Care Provider	7[8.21]	16[13.96]	0[0.82]	13.81	6	.032
Urgent Care	2[1.07]	0[1.82]	1[0.11]			
er, primary care, er	1[0.36]	0[0.61]	0[0.04]			
urgent care, primary care	0[0.36]	1[0.61]	0[0.04]			

Note. Values formatted as Observed[Expected].

Table 12: Fisher test EAFP PCP compared to insurance provider

Fisher Test EAFP PCP related to Insurance Coverage

	Is_East_Area_Family_ CP	Pracitice_your_P	
child_chidren_s_insurance_coverage_Nomi nal	No	Yes	p
Medicaid	4[6.45]	6[2.90]	.03
Commercial	15[11.61]	3[5.23]	
Other	1[0.65]	0[0.29]	

Table 13: Fisher test Child 1 up to date on vaccines compared to insurance coverage Child 1 up to date on vaccines compared to insurance coverage

	child_1_up_to_date_on_	_vaccines	
child_chidren_s_insurance_coverage_Nominal	Yes	No	p
Medicaid	9[8.06]	1[0.65]	1.000
Commercial	15[12.90]	1[1.03]	
Other	1[0.81]	0[0.06]	

Note. Values formatted as Observed[Expected].

Table 14: Fisher test indications to improve vaccine availability compared to insurance coverage

$\underline{Recommendation\ to\ improve\ vaccination\ status\ related\ \underline{to}\ insurance\ coverage}$

	Improve Vac		
Insurance Coverage	Yes	Not Selected	p
Medicaid	3[2.00]	3[4.00]	.464
Commercial	0[1.00]	3[2.00]	

Note. Values formatted as Observed[Expected].

Table 15: Fisher Test sick visit site compared to insurance coverage

Most frequent site for sick visit related to insurance coverage

	child_chidren_s_insurance_coverage _Nominal			
the_most_frequent_site_you_take_your_child_t o_when_sick	Medicaid Commercial Other			p
Primary Care Provider	7[7.42]	16[12.61]	0[0.74]	.01 9
Urgent Care	2[0.97]	0[1.65]	1[0.10]	
er, primary care, er	1[0.32]	0[0.55]	0[0.03]	
urgent care, primary care	0[0.32]	1[0.55]	0[0.03]	

List of Figures

Figure 1: Ethnicity of Respondents

Ethnicity of Respondents

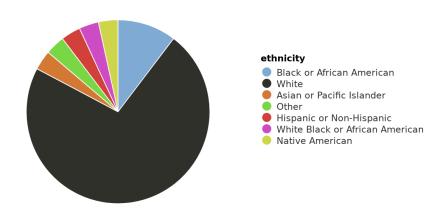


Figure 2: EAFP as the PCP

EAFP as the PCP

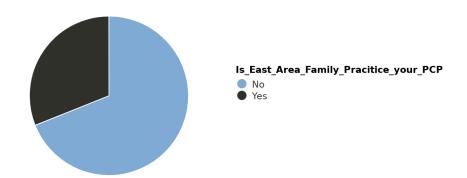


Figure 3: Respondent's Relationship with Child(ren)

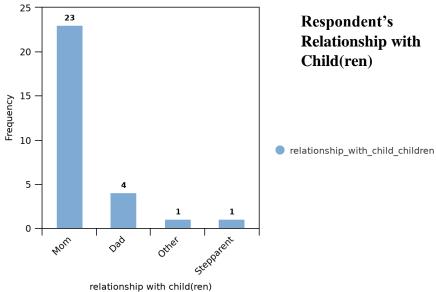


Figure 4: Insurance Coverage for Child(ren)

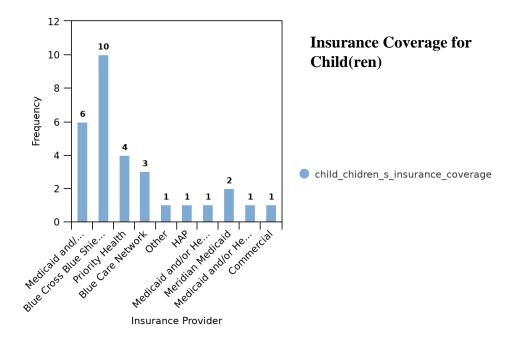


Figure 5: Insurance Coverage Medicaid vs Commercial

Insurance Coverage Medicaid vs Commercial



Figure 6: First Child's Vaccination Status

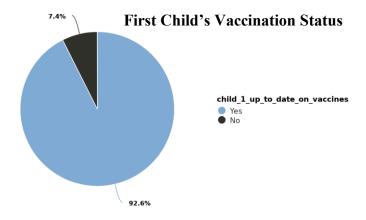


Figure 7: Reasons for Sick Visits

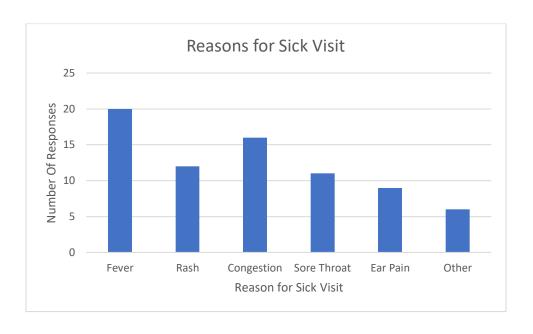


Figure 8: Sick Visit Sites

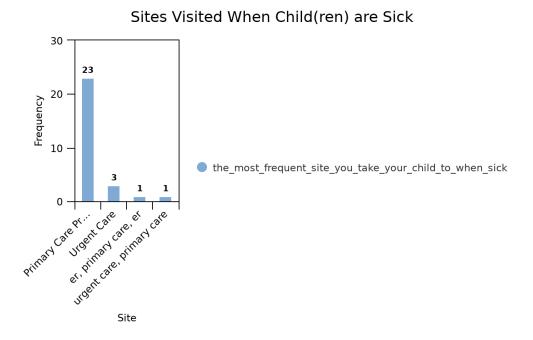


Figure 9: Sick Visit Site vs Insurance Coverage

Most Frequent Site for Sick Visit by Insurance Coverage

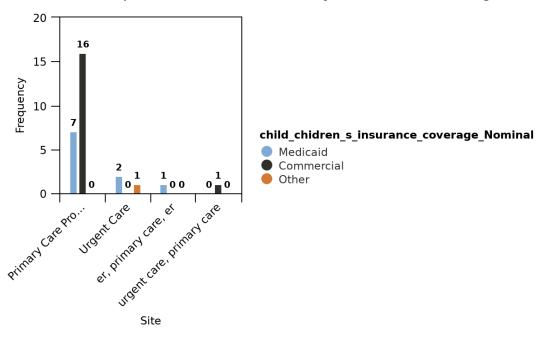


Figure 10: Insurance Coverage for EAFP Patient's

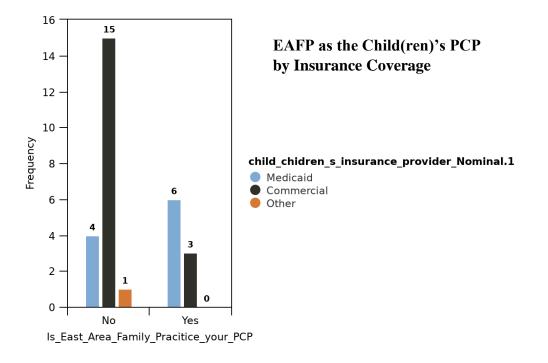


Figure 11: Suggested Improvements for Care

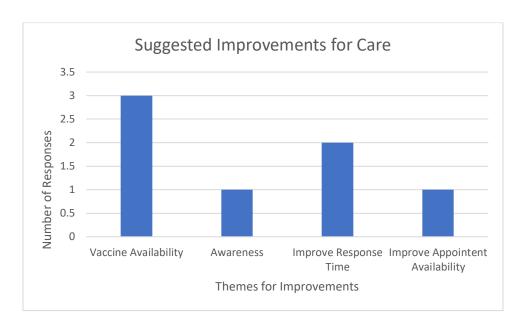
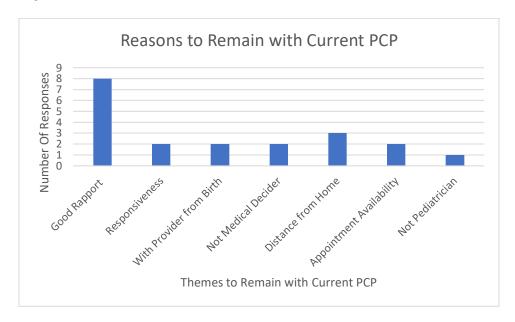


Figure 12: Reasons To Remain with Current PCP



Appendix A

Needs Assessment Survey

1.What is your age? 18-20 21-25 26-30 31-35 36-40 41-50 Over 50
2. What best describes your ethnic origin?
☐ White
Hispanic or Latino
☐ Black or African American
Asian or pacific islander
other
3. Do you have a child/children? ☐ Yes ☐ No
4. How many?
5. What is your relationship with the child(ren)?
☐ Mom
□ Dad
☐ Stepparent
☐ Guardian
☐ Foster parent
Grandparent
Other

6. How many children do you have in each age group?
0-4
5-10
11-14
15-18
7. What insurance do you have for your child(ren)?
☐ Medicaid and/or Healthy Kids
☐ Medicaid HMO
☐ Aetna
☐ Blue Care Network
☐ Blue Cross Blue Shield Michigan
□ HAP
☐ Humana
□ Molina
☐ United Healthcare
Priority Health
Uninsured
Other:
8.a) Does your child(ren) attend all recommended well-child visits with a provider?
□ Yes
□ No
Other
8. b) If no to 8a, why not?
☐ Transportation issues
☐ Time off work/school

	Other:
9. a) Is	your child(ren) up to date on vaccines?
	Child 1:
	Age of Child:
	Yes
	No
	Other:
	Child 2
	Age of Child:
	Yes
	No
	Other:
	Child 3
	Age of Child:
	Yes
	No
	Other:
9. b) If	no, why?
	Delayed due to parent illness
	Delayed due to child sickness/illness
	Difficult to get an appointment
	Questions/concerns about immunizations
	Religious beliefs
	Not offered at this office
	Other

10. a) Does your child(ren) see a provider when sick?
□ Yes
\square No
10. b) what are typical reasons you bring your child(ren) to see a provider when sick? (select all that apply)
☐ Fever
□ Sore throat
Rash
Congestion
Other:
10. c) When your child(ren) is sick, where do you most commonly take your child(ren) to see a provider? (choose the most frequent site you use)
□ ER
Urgent Care
☐ Primary Care Provider
Other:
11. a) Does your child(ren) see a provider at East Area Family Practice as a primary care provider?
☐ Yes
\square No
If you answer 'no' please continue directly to question #12
11. b) If yes, how did you learn that we provide care for child(ren)? Select all that apply
During an office visit
☐ By calling
Corewell website
From someone you know
Insurance

☐ Other:
11. c) What does East Area Family Practice do well in providing care for children? Select all that apply.
Appointment availability
☐ Vaccination administration
☐ Anticipatory guidance
☐ Well child visits
☐ Sick visit availability
☐ Quick response from providers
Other:
11. d) What can East Area Family Practice do to provide better care to children?
☐ Improve appointment availability
☐ Offer vaccination administration
☐ Providing information on expected age-appropriate milestones, activities, and care.
☐ Improve response time from providers
□ Other:
12. a) If you answered no to 11. a) did you know East Area Family Practice provides care for children?
□ Yes
$\square_{ m No}$
12. b) If yes, why did you choose another provider?
Close to home
☐ Referred by a friend
☐ Able to have child(ren) vaccinated
☐ Insurance
Other
12. c) Is there anything East Area Family Practice can do to encourage you to switch your child's

our office?

primary care to

12.	d) Is there something East Area F	Family Practice	does that stops	you from	bringing your	child
to o	our office for visits?					

13. If you answered no to 11. a) would you switch your child's primary care to East Area Family Practice knowing we provide care to children? Why or why not? Select all that apply

Yes No

Vaccine availability
Appointment availability
Insurance
Provider response time
Distance from home
Other:________

Appendix B Informed Consent Notice

A Needs Assessment to Improve the Pediatric Experience and Increase the Pediatric Population at East Area Family Practice

Informed Consent

You are invited to participate in a quality improvement study about the experience of pediatric visits at East Area Family Practice. The goal of this study is to determine the ways East Area Family Practice can improve the pediatric experience at the office and reduce barriers to receiving care.

This study is being conducted by Briana Harkiewicz FNP-BC.

Participation in this study is voluntary. If you agree to participate in this study, you would be surveyed about your experience of pediatric healthcare. The survey includes questions about child's insurance provider, child healthcare, vaccination status, and barriers to care. The survey will take approximately 4 minutes to complete.

Participating in this study may not benefit you directly, but it will help us learn. You may find answering some of the questions upsetting, but we expect that this would not be different from the kinds of things you discuss with family or friends. You may skip any questions you don't want to answer, and you may end the survey at any time.

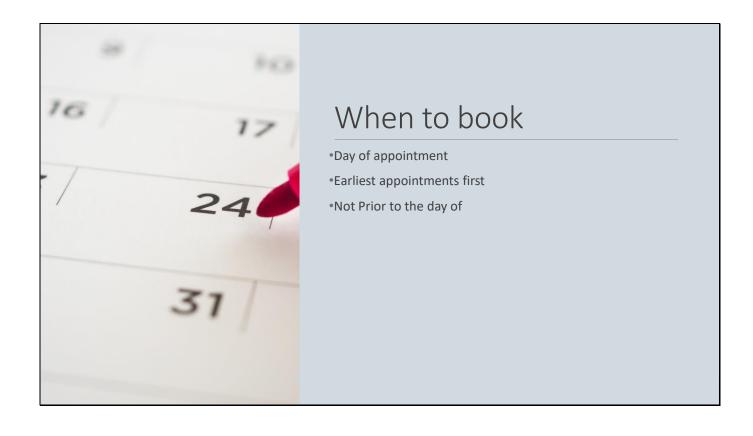
The information you will share with us if you participate in this study will be kept completely confidential to the full extent of the law. Your personal information will not be stored for this study. You will use an individual link/token provided to access the online survey. The link/token will allow for a one-time survey completion; however, the answers will not be associated with the link used to complete the survey. If you choose to complete the survey via mail, the link/token will be used only to ensure that this is not a duplicate response and will not be associated with your answers. Additionally, there will not be a key or log kept tracking which individual received which link/token, your information will be entirely deidentified. No names, addresses, email addresses or other identifying information will be collected with the survey responses. No one at Corewell Health or East Area Family Practice will be able to see your survey or even know whether you participated in this study. While the investigator(s) will keep your information confidential, there are some risks of data breeches when sending information over the internet that are beyond the control of the investigator(s). Please note: You must be 18 or older to participate in this study. If you have any questions about this study, please contact Briana Harkiewicz at 586-294-9600 or by email at Briana.harkiewicz@corewellhealth.org. By completing this survey, you are consenting to participate in this study. *Please print or save a copy of this form for your records. *

Appendix C Same Day Visit Education

Slide 1

Same Day Visits

Slide 2



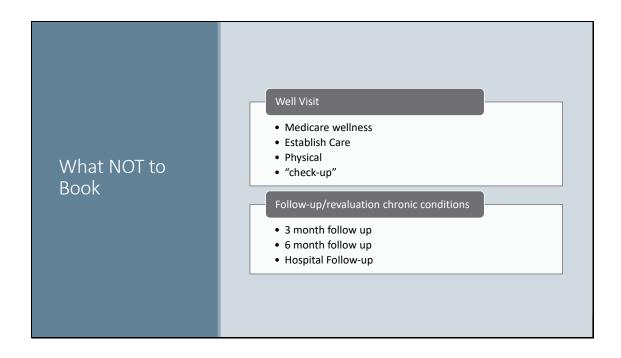


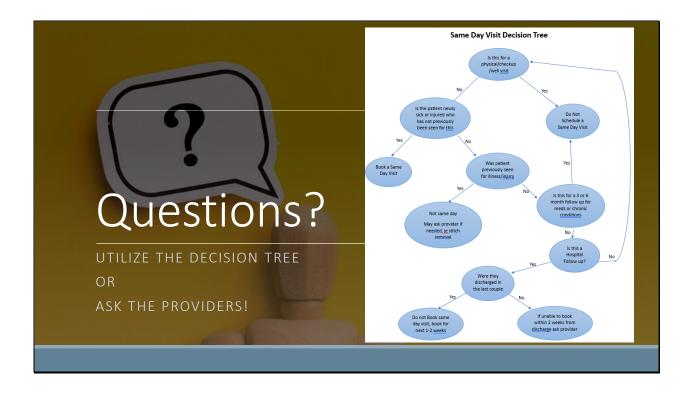
What to Book as Same Day

Acute visits

- Sick
 - Sore throat
 - Cough
- Congestion
- Headache
- Urinary symptoms
- Fever
- Injury
 - Specific injury event
 - Back pain
 - Ankle pain
 - Knee pain
- Arm/shoulder pain

Slide 4





Same Day Visit Decision Tree

