



# Addressing childcare as a barrier to healthcare access through community partnerships in a large public health system

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## ABSTRACT

**Objective** In our public health system, a survey of reproductive-aged women identified lack of childcare as the most common reason for missing or delaying healthcare. Community-based organisations (CBOs) in our county identified a similar need, so we partnered to develop a hospital-based childcare centre for patients to use during appointments.

**Methods** In a large academic public health system, a partnership with a non-profit childcare CBO was formed to address lack of childcare as a barrier to accessing healthcare. Pilot clinics where no-cost childcare would be offered included obstetrics, gynaecology and medical oncology. Transparent communication from the CBO within the electronic medical record was built to minimally impact clinic workflows. Visual and electronic outreach, including patient portal questionnaires, were created to introduce patients to the services. Personalised clinic staff in-services were performed to introduce the service to clinics and leadership. Continual assessments of workflow were conducted and adjusted based on patient and staff feedback and quality checks. At 12 months, overall utilisation of the service was collected.

**Results** In the first 12 months that no-cost childcare was offered, 175 patients enrolled 271 children into the programme. Ninety-seven percent were women, primarily Hispanic (87/175 (50%)) or black (64/175 (37%)), with an average age of 31.8 years. Of the enrollees, 142/175 (81%) patients made 637 childcare appointments and 119/175 (68%) patients used at least one reservation for 191 children. Most patients were verbally referred by clinic staff for childcare or self-referred for childcare from clinic signage or paperwork. Childcare was requested most frequently for obstetrics and gynaecology appointments.

## INTRODUCTION

Women face unique barriers to healthcare. While both women and men are impacted by health costs, the burden on women is higher because of their lower wages, more limited financial assets and higher poverty. These inequities result in women being more likely than men to have delayed or forgone healthcare.<sup>1–4</sup> In a national sample of 2751 women

## WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ Lack of childcare is now being recognised as a significant barrier to accessing medical care.
- ⇒ Women's health surveys indicate that problems getting childcare are reported more frequently in low-income women creating a disparity in their access to medical services.

## WHAT THIS STUDY ADDS

- ⇒ Collaboration with community-based organisations to address lack of childcare creates a way for patients to access medical care instead of foregoing care, and a no-patient cost campus childcare centre was used by patients when made available.
- ⇒ Electronic means of communication between community-based childcare staff and clinic personnel provides a transparent and efficient platform during a patient's medical care.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ Partnerships between healthcare systems and community-based childcare organisations can be leveraged to alleviate the access to care barrier that a lack of childcare resources presents.
- ⇒ Childcare provision to facilitate attendance at medical appointments may provide a solution to address barriers to care for parents or caregivers, particularly when they are no cost, integrated into clinical workflows and in a location nearby and convenient their medical appointments.

ages 18–64, the 2017 Kaiser Health Survey found that compared with men, women were more likely to delay or go without healthcare with up to 26% of women reporting putting off or postponing preventative services, skipping recommended tests/treatments and cutting or skipping medications because of costs.<sup>1</sup> In another large survey, 45% of women delayed or did not receive cancer screenings or dental care because of costs versus 36% of men.<sup>2</sup>

These inequities, compounded with gender roles and expectations, present unique burdens on women, and while costs of care are important, consideration of additional burdens women face is critical to finding solutions towards equity.<sup>4,5</sup> Understanding women's social determinants of health is imperative to meaningfully address challenges imposed in this population.<sup>4,5</sup> Logistical barriers related to women's roles as caretakers and employees have also been identified to impact access to care.<sup>1,6</sup> The Kaiser survey of women found that 24% of women could not find time to go to the doctor, 23% could not take time off from work and 14% of women missed or delayed their own healthcare because of lack of childcare. While these barriers impacted all women, low-income women were more likely to experience both childcare problems and delays in obtaining healthcare.<sup>1</sup>

## DEFINING THE PROBLEM

Health system employees had anecdotally noted that patients were frequently attending healthcare visits accompanied by small children or reporting that missed appointments were due to lack of childcare. This resulted in the conduct of a survey of 300 reproductive-aged women seeking healthcare services at Parkland Health in 2019, which found that over half of women reported missing or delaying care in the past year. Through structured interviews of women in ambulatory care settings, 52.7% of survey respondents cited childcare as the primary reason for missing healthcare appointments. Of those who reported delaying care, 38.2% delayed care for 1–6 months and 30.9% for 1 week to 1 month. A percentage of 86.8% missed checkups and well visits, and 31.8% missed problem visits like specialty appointments and oncological care. Lack of childcare (52.7%) was the most frequently cited reason for missing care followed by lack of transportation (32.8%) and lack of insurance (25.2%).<sup>7</sup> As a result, Parkland Health engaged in a partnership with a non-profit organisation, Mommies in Need, to address this critical need for childcare for patients to attend their medical appointments. Herein we describe this healthcare improvement initiative at a public health system that aimed to increase access to care by removing the lack of childcare as a barrier. Our primary objective was to measure patient utilisation of childcare services during medical appointments and secondarily, to disseminate implementation procedures to organisations aiming for similar collaborations with community partners. The SQUIRE 2.0 guidelines were used for reporting.<sup>8</sup>

## METHODS

Parkland Health and the Dallas-based non-profit community-based organisation (CBO) called Mommies in Need, forged a collaborative initiative to provide childcare for caregivers' children while the caregivers receive medical care in the public health system. Mommies in Need offers in-home, virtual and onsite childcare services and specialises in childcare for caregivers with medical

needs. Approval from the Parkland Health's leadership and Board of Managers kickstarted the organisational planning for the initiative in 2019. The childcare centre was constructed in a building that the public health system owned located within walking distance from the main hospital campus and clinics. This building was leased to Mommies in Need for a term of 5 years. The centre opened in November 2020.

## Patient and public involvement

Prior to partnering with Mommies in Need, existing patients were surveyed, and experiences were collected to gather feedback on reasons why women miss clinic appointments.<sup>7,9</sup> In addition, 1 week of missed appointments in proposed pilot clinics were calculated to estimate potential volume of childcare appointments that would be needed. Feedback was used to create a proposal to the health system executive leadership. During implementation, patient input was used to modify patient-facing materials promoting the service and to identify areas for expand services. The primary outcome measured patient utilisation of childcare services during medical appointments because it reflected the unmet need for childcare. Patients had the opportunity to self-refer for childcare services at anytime and were not obligated to use the childcare services if they indicated a need or enrolled in services.

## Ethical considerations

Throughout the implementation of this initiative, patients' privacy and cultural belief systems about who can care for their children were discussed. Patients' demographics and referring clinic site (including their utilisation of childcare services) was used to further expand the programme to new clinics and tailor outreach to prospective patients in a way that fostered trust and respect for patient privacy. Patient's diagnosis information was not required to obtain childcare services, and all Mommies in Need employees were required to complete institutional HIPAA (Health Insurance Portability and Accountability Act) and compliance training.

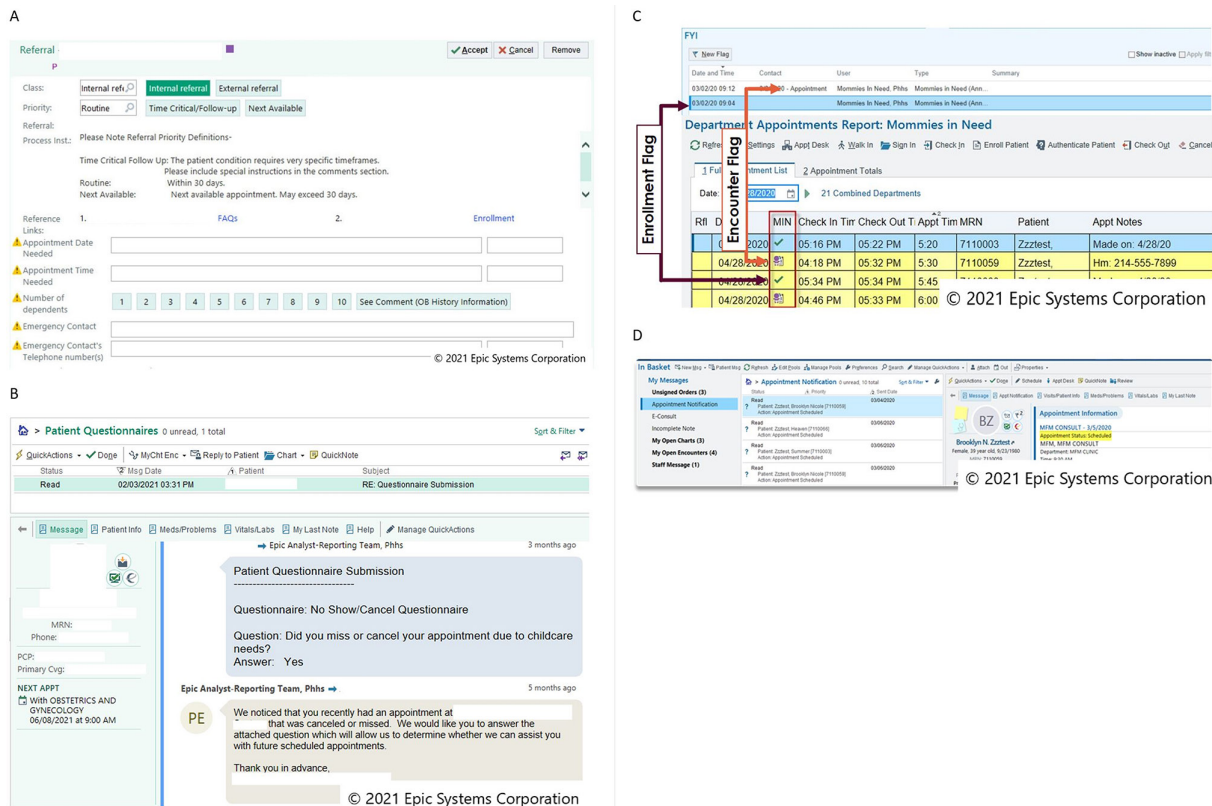
## Organisational planning

### Team

An executive sponsor was assigned for oversight, and a project manager led team meetings to ensure continuity between each component of the initiative. Membership to team meetings included personnel from the following Parkland Health departments in addition to Mommies in Need leadership: strategy and integration, the centre of innovation and value at parkland, facilities, the police department (parking/shuttle services), information technology and external affairs.

### Costs

Costs to fund the programme were split between Parkland Health and Mommies in Need. The health system provided the space for the childcare centre within the system's campus to facilitate geographic convenience and



**Figure 1** Incorporation of workflow into the electronic medical record. (A) Electronic referral. (B) Example of outreach efforts using the patient portal to send questionnaires with answers to childcare staff. (C) Patient chart flags used to indicate patient enrolment in childcare services or childcare reservation. (D) Automatic notifications if a new clinic appointment is scheduled or rescheduled.

access to childcare services for patients. To have this space readily available for this use, the public health system made site upgrades to the existing building. Parking lot, security equipment and technical equipment (including computers and telephones) were provided by the health system. A no-cost lease, maintenance costs including environmental services, utilities and security were provided by Parkland Health for an initial agreement of 5 years. Mommies in Need was responsible for the staffing, day-to-day management and operations of the centre, licencing and liability insurance related to the childcare centre and staff, supplies, equipment, furniture, build-out design fees and construction costs related to such improvements (figure 1). These costs were covered through the non-profit's fundraising and charitable-giving efforts. All childcare provided was at no cost to patients.

### Logistics

All employees and volunteers of Mommies in Need were set up as non-patient care non-employees, working in areas where patient care is not performed. According to the health system's regulations, Mommies in Need Childcare Center employees received corporate training and badge access after the employee was cleared with background checks. Also, to facilitate the communication between the childcare centre and the health system's outpatient clinics, Mommies in Need Childcare Center

staff were provided limited access to the electronic medical record (EMR). This allowed for communications to be documented in the EMR and promoted a flow of information between the childcare centre staff and the health system clinical staff, for example, childcare staff would know where and when clinic appointments were scheduled that may require childcare.

Mommies in Need offered two types of childcare programmes, with the only differences being the amount of time a child may attend, and the documentation required for enrolment. Both programmes followed policies and procedures set forth by the State of Texas and followed Minimum Standards for Childcare Centers.

### Pilot

The initial rollout included the maternal fetal medicine, gynaecology, and medical oncology clinics, but later was expanded to most campus clinics including but not limited to palliative care, radiology, neonatal intensive care units and immunisation appointments. A series of meetings were conducted with operational and nursing leaders from each of the pilot clinics to promote referrals into the childcare programme and to understand the specific use cases and workflows unique to each clinic. Clinic schedules were used to determine the hours of operation for Mommies in Need that would best suit the needs of the patient population.

### Workflow integration

A key element for the flow of information between Mommies in Need and healthcare staff was through the EMR. Workflows were designed to have minimal impact on clinical and business operations while leveraging EMR functionality to provide communication and transparency between the children at Mommies in Need and caregiver's clinical care areas. The following were integrated into the EMR workflows:

*Healthcare staff referrals (figure 1):* electronic referrals were built into the EMR to allow any member of the healthcare team to refer patients for childcare when the need was identified.

*Clarifying documentation:* no show and cancellation of appointment options were updated to include childcare as a reason for missed appointments throughout the organisation. Patient portal questionnaires were automatically sent to patients with missed or cancelled appointments to identify if childcare was a barrier.

*Direct to patient messaging (figure 1):* information about the no-cost childcare was built into the after-visit summary (AVS), informational pamphlets were made available in clinic and posters were placed in patient waiting areas. Electronic portal questionnaires were sent to patients who either had a cancelled or a missed appointment in select clinics asking if the appointment was missed due to childcare. Options for responses included: yes, no and not applicable.

*Patient chart flags (figure 1):* custom patient chart flags were built to indicate that a patient was enrolled into the programme and/or had childcare for an upcoming appointment. Each flag had a corresponding icon that displayed within the provider clinic schedule as well as daily appointment reports for Mommies in Need personnel. The flags also triggered inbox messaging or a mobile text if enrolled patients had new or cancelled appointments, checked out from an appointment or were admitted to the hospital from the clinic appointment.

*Reporting:* daily reports were made available to Mommies in Need staff that provided upcoming appointment information so that future childcare needs could be anticipated and discussed with patients when picking up their children.

### Measures

The primary measures of success included acceptance and utilisation of childcare services in the first 12 months (November 2020–October 2021) of facility opening including the number of families enrolled and frequency of childcare appointments made. Secondary measures were descriptive and included the mechanism through which patients were introduced to childcare services, types of appointments in which childcare was scheduled and demographic composition of the population in need of services. In addition, age, hours of care and number of children cared for were also captured. All outcomes reported were descriptive.

**Table 1** Demographics of patients using childcare services during the first 12 months

Demographic variables	Enrolled patients
Age±SD	31.8±8.18
Female, n (%)	169 (96.6)
Ethnicity/race, n (%)	
Hispanic – white/other	87 (49.7)
Black	64 (36.6)
White	13 (7.4)
Asian	3 (1.7)
Non-Hispanic – other	8 (4.6)
Primary language	
English	119 (68)
Spanish	51 (29.1)
Other (Haitian Creole, Cambodian, Burmese)	4 (2.3)
Number of enrolled children	271
Patients with childcare reserved, n (%)	142 (81)
Total childcare reservations made	637
Patients with childcare used, n (%)	119 (68)
Total unique children completing at least one visit	191
Total childcare reservations completed	482
Clinic appointment types for which childcare was reserved (%) (n=637)	
Specialty	45 (7.1)
Primary care	7 (1.1)
Ob/gyn (including Gynecologic Oncology)	316 (49.6)
Oncology	19 (3)
Lab (not ob/gyn)	31 (4.9)
Infusion services	52 (8.2)
Imaging/diagnostics	15 (2.4)
Immunisation	4 (0.6)
Other non-clinic related (Newborn Intensive Care Unit, play therapy, respite)	148 (23.2)

### RESULTS

In the first 12 months, there were 175 families enrolled into the childcare programme run by Mommies in Need. Patients seeking childcare were primarily female with an average age of 31.8 (table 1) and 29% (51/175) indicated Spanish as their primary language. The primary appointments booked for childcare services were from the obstetrics service followed by gynaecological services. Not all families who enrolled for services went on to schedule childcare (81% (142/175) scheduled appointments) for unknown reasons. There were 23 enrolled families for which childcare was scheduled; however, did not use the childcare service. Therefore, a total of 119 families

both enrolled and used childcare services in the first year (table 1).

Over the course of 1 year, 637 childcare appointments were made, and 482 childcare appointments were completed for 191 children with an average age of 3.6 ( $\pm 2.5$ ) years (table 1). The average age of children followed school day patterns with older children attending during the summer months and during school breaks. A total of 3136 childcare hours were provided by Mommies in Need.

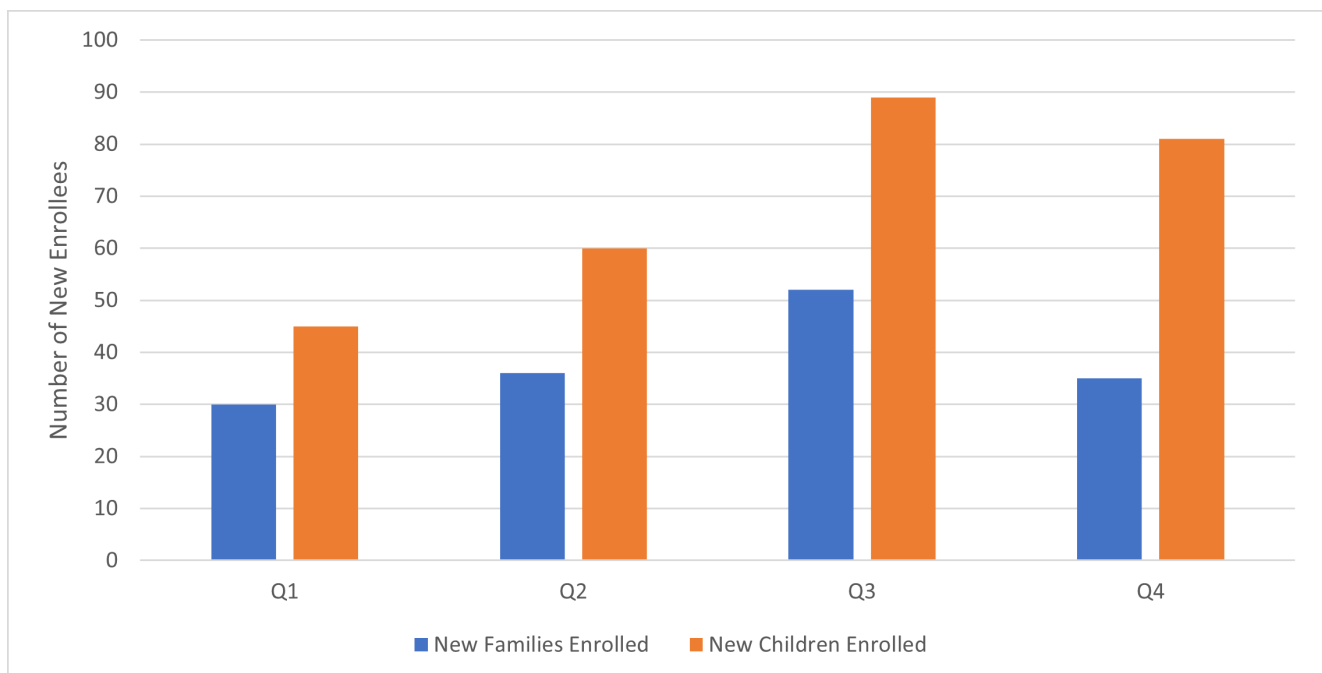
Most patients were self-referred or verbally referred and learnt about the service through waiting room posters, word of mouth, AVS paperwork or news outlets. However, 53 patients were electronically referred, of which 18 enrolled in services. Thirty-four per cent (631/1833) of patients who received electronic portal questionnaires indicated that childcare was the reason for their missed appointment and 27 families subsequently enrolled their children for future childcare based off the outreach generated from the missed appointment questionnaire.

There were several findings in the first 12 months that required adjustments to the original workflow. Once the childcare programme was socialised throughout the organisation, the need to expand the participating clinics was apparent. Other expanded services beyond caregiver clinic appointments included expanding eligibility for childcare for siblings of neonates in the neonatal intensive care unit so parents could spend time with their critically ill newborn. Also, some EMR triggers (eg, text notifications for checkout and admissions) either did not work outside of testing environments or varied by clinic and alternative methods needed to be implemented. Finally, full review of patient responses to patient portal messages asking about missed appointments indicated that some

patients were sensitive to any verbiage that indicated they 'no showed' or 'cancelled' an appointment. We modified the trigger for the questionnaire to eliminate cancelled appointments and changed the questionnaire wording. Within the first year of opening, the centre doubled new child enrollments (figure 2), effectively increasing services to more patients in need of childcare.

## DISCUSSION

Similar to communities across the nation, much work addressing social determinants of health such as access to health insurance, transportation, access to providers in local communities and trust in the health system have been addressed by the county health system. With a focus on the specific needs of women, we identified childcare need as a significant barrier to accessing care for women of reproductive age and noted this to be the most cited barrier by the population that this health system serves.<sup>7</sup> By quantifying this need through structured interviews with women accessing health services, we were able to begin to formulate new and innovative solutions to address this unmet need. The local philanthropic community has long supported and helped to advance the public health mission of Parkland Health, and Mommies in Need has been working to address lack of childcare as a barrier to healthcare since 2014. By partnering with Mommies in Need, we have been able to test the hypothesis that by addressing the childcare needs of our patients through the delivery of no-cost, high-quality childcare on site at the medical campus, we will be able to further support the health of our patients and thereby our communities. It should be noted that prior to this health system/CBO collaboration, Mommies in Need provided childcare



**Figure 2** Demonstration of doubled new child enrolments within the first year of opening.

for parents and guardians experiencing a health crisis primarily with its in-home and virtual programmes. Thus, this partnership was developed to be site specific and tailored to the needs of our patients while harnessing the expertise of the Mommies in Need organisation.

While efforts to refine the processes and to improve access to these new services are ongoing, our early experience points to the need for health systems to acknowledge the unique barriers and stressors that specific patient populations, in this case mothers and caregivers of younger children, experience. Work examining the health and social impact, costs and clinical outcomes of this solution are ongoing with particular focus on examining the building of trust in the health system, resource utilisation, as well as health outcomes associated with the improved ability to attend healthcare appointments and follow-up with treatment recommendations.

Limitations of this quality initiative are that we were unable to directly determine if utilisation of childcare services impacted missed medical appointments and health-seeking behaviour. We found that over 20% of requests for childcare were not directly associated with a medical appointment (table 1). In addition, of the 631 patients that indicated childcare was the reason they missed their appointment through the patient portal, only 27 of these enrolled in childcare services when offered. This finding is hypothesis generating and may indicate that additional social determinants are affecting health-seeking behaviour in this population. These limitations should be further investigated in future controlled (non-observational) studies at which time the association between providing childcare and health-seeking behaviour can be made. This report is limited to showing the feasibility of partnering with a CBO and describing utilisation of this service within a health system.

## CONCLUSIONS

Improving the health of our patients and our communities requires innovative ways of examining, defining and addressing barriers to healthcare. These approaches include listening to, then redesigning programmes to address the patient-reported barriers and stressors. This past year, during the COVID-19 pandemic, society was forced to take note of the many unacknowledged, uncompensated responsibilities that primary caregivers take on and the societal impact of the current tenuous support system. Our local solution was to help ease the burden of childcare for the time it takes patients to access needed health services with the goal of improving the health of our patients. To our knowledge, this is the first of its kind partnership between a non-profit organisation and public health system in the USA to implement an on-site, hospital-based drop-in childcare centre for patients. By sharing the steps required for this initiative, our hope is to allow similar organisations to consider and potentially replicate such an intervention.

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