(PLEASE NOTE: Transcribed automatically by Vimeo; mistakes are possible/likely. Our apologies.)

TRANSCRIPT - GR 11 15 24 ***"Childcare Barriers to Healthcare: Implications for Women's Health and Health Equity"*** guest speaker Anisha Ganguly, MD MPH, University of North Carolina at Chapel Hill

---

Internal Medicine Grand Rounds

- **UVA Grand Rounds**

  Okay, great. So what we're gonna do initially is, I'm gonna put up some slides for like.

- So who spoke vacation pretty well.
- And we were like, Oh, do you speak French? And he's like, Oh, a little bit. But like actually, many people discovered French and Haitian, really, not that similar. Technically, it's like a creo.

  Anisha Ganguly (she/her)

  00:04:29

  I can't hear you, but someone's talking over so I can't hear you.

  UVA Grand Rounds

  00:04:33

  Right.

- Okay, I was just saying that I just need to go, so I might and then, once I'm done with my introduction. Then you can share your screen.

  Anisha Ganguly (she/her)

  00:04:45

  Sure.

  UVA Grand Rounds

  00:04:45

  Okay.

Anisha Ganguly (she/her)

00:04:47

Perfect.

UVA Grand Rounds

00:19:32

It's our camera in here all right. Everyone welcome to virtual medical grand rounds. I'm Dr. Brian Outlaut. We're excited to have Dr. Anisha ganguly here with us to talk about child care barriers to healthcare implications for women's health and health equity.

- All right. Our Cme. Disclosures Dr. Ganguly's objectives for faculty recording their Cme.
- At these slides here, and then
- we'll bring up Dr. Shaina Hassan to introduce our speaker. You.
- So good afternoon, everyone. It's my pleasure to introduce our grand round speakers for today. Dr. Anisha Ganguly. Dr. Ganguly is an assistant professor of Medicine in the Unc. Chapel Hill Division of General Medicine and clinical epidemiology, and is also a junior clinician investigator in the Carolina Cancer Screening Initiative. Dr. Ganguly received her medical degree from Ut Southwestern School of Medicine and her Mph. From Ut Health School of Public Health.
- She completed her Internal Medicine Residency at the University of Washington in their primary care track, and then returned to Texas as the Inaugural Health Equity Fellow for Parkland Health.
- Dr. Ganguly is a passionate primary care physician and researcher, focusing on social and structural interventions to promote equitable access to preventative care, particularly cancer screening and her research has centered on the interrogation of racial, ethnic, and socioeconomic disparities in primary care, with an intersectionality lens her current work, explores a historically overlooked and under recognized social driver of health outcomes. Access to childcare and its impact on women's health and preventative care.
- We're incredibly excited to have her join us today. Virtually so please join me in welcoming Dr. Yanguli.

Anisha Ganguly (she/her)

00:21:28

Thank you so much for the kind introduction. Shaina. Thank you so much. To you and

- Marcus, for inviting me to share some of my work today I'm gonna go ahead and share my screen.

- Is it projecting in presenter mode.

UVA Grand Rounds

00:22:19

Yeah, it looks good to us. Now.

- you might need to go to your display settings up at the top of your screen to switch it.
- Okay, that's good.

Anisha Ganguly (she/her)

00:23:33

Okay. Alright. This is good. Now, right?

UVA Grand Rounds

00:23:35

Yep, thanks.

Anisha Ganguly (she/her)

00:23:37

Sorry about that technical difficulty, and thanks so much for giving me the opportunity to present some of my research today about childcare as a social driver of health and my learning objectives for today's presentation will start with defining some of the terminology that we apply when we talk about social drivers of health.

- I'll review some of our current evidence about caregiving as a social driver of health.
- We'll reconcile the notion of childcare responsibilities within our conceptualization of caregiving.
- And I'll share some research about how, child that we have thus far about how childcare needs affect access to care, and we'll start to consider interventions to address childcare barriers to access to health care.
- So no disclosures.
- And before we really dig deep, you know, this is a a familiar schematic to most about grappling with the reality that the point that we encounter patients, and at the point of medical care, delivery, and clinical care, really comprises only 20% of health outcomes that define patients experiences and that other 80% is happening in midstream and upstream factors related to social needs and upstream the community conditions and policy factors that define health outcomes and before we move forward, I think it's also important to define access to care. So as a health services researcher myself, if you asked 10 health services researchers or health

policy researchers, what does access to care mean? You would have 10 different definitions. So the definition that I utilize for access to care is this definition that was published in International Journal for Equity and Health in 2013, and it defines access to care as the opportunity to have healthcare needs fulfilled.

- And and this this conceptual framework divides opportunity for healthcare needs divided into a delivery side and a receipt side. So the delivery side is from, you know, the individual provider level and scales up to health systems, factors that affect ability to deliver care.
- When we think about the recipient side.
- you know, if we consider patients, you know ability to receive, and that scales up to families, communities, and populations. And you know there's so many more factors on the patient receiving side.
- Then, simply availability of appointments. And you know, geographic location. There's definitely intrinsic values of patients, health, literacy, health beliefs.
- culture. But then there are also logistical constraints. You know, transportation built environment, financial strain. These are all intuitive. But it's important for us to take a holistic approach to understanding all these factors that lead to patients able to get the care that they need and you can't ignore the reality that the Us. Is uniquely poor in this respect, with aligning social spending, with health care, spending, and you know, to the left is a schematic of kind of distribution of how we should be recommended. Distribution of health care, spending dollars, and recommended distribution towards social needs.
- But instead, we're disproportionately spending at the downstream at the point of healthcare delivery, when we could be allocating more funding to creating more healthy communities.
- And we're alone in this respect. You know, the Us is, you know, this is a diagram showing kind of the correlation between social spending and health care spending, and we are really off the mark with disproportionately spending at healthcare costs rather than social safety nets.
- I'm going to use a lot of terms in this talk for us to consider childcare as a social driver of health, and you'll note that I'm utilizing the term social driver of health and the term a lot of us are trained with is social, determinant health. So let's reconcile those differences.
- Social drivers of health is an umbrella term for social determinants of health, social risk factors and health related social needs. These are all interrelated, but apply at distinct impact levels. So social determinants of health are the concepts. You know, these conditional factors that define health outcomes for patients. These are neighborhood factors, community factors, economic factors, healthcare access factors. And they impact at the community level. I think an important point is that social determinants of health are not inherently positive or negative.
- They're just a state of access or availability. It's a conditional state. So availability of housing is a social determinant of health. Access to healthy food is a social determinant of health.
- When the negative aspect of this comes into play. The appropriate terminology to utilize is social risk factors. So these are the adverse social conditions. These are the negative social conditions of social determinants of health that lead to poor health outcomes.
- Social risk factors are a state of vulnerability. So on its impact level is at the community level with propensity to affect individuals.

- This means housing, instability, food deserts, and these are social risk factors. And it doesn't apply to every individual in that community. It's again, a state of vulnerability that can have the ability to impact individuals.
- And then the most granular term is health related social needs. And this is what we encounter most often in clinical spaces. These are the things that we're screening. For when we screen patients for social drivers of health, so health related social needs, their individual level manifestations of social drivers of health. And they're most often the social needs that are affecting healthcare engagement. These are needs that are screenable and often the target of our interventions that are integrated within health systems and they can be dynamic. So if a patient is unhoused one day, they may not be the next year. They can be food insecure one month, but you know their financial situation may change the next month. So it's important to note that health related social needs are dynamic.
- So let's consider caregiving as a social driver of health, and I would wager most of us, when we hear the term caregiver. The image that it evokes is elder or dependent care. We think about caregiving most often when we're talking about activities of daily living, you know, dependence for Adls or iadls and the other term that we encounter very often clinically, is caregiver burden, which is conceptualized often in terms of mental health. So we think about it in terms of burnout anxiety, depression.
- But we don't as often think about caregiver burden as impacts to the physical health of caregivers and in most routine screening tools, you know, the most common ones that are utilized are accountable health communities that is utilized by Cms and the Health lead screening toolkit. These are common Sdoh screeners.
- Caregiving responsibilities is not very routinely screened, and often we screen for caregiving needs with regards to the recipient of caregiving, not the experience of the caregiver themselves.
- To the left is a paper that was published in Jama Internal Medicine in 2016, showing the breadth of work that caregivers are doing. This is in the context of eldercare, but very non-trivial amount of labor that caregivers are putting in, and a lot of significant assistance provided what about childcare? So the nih definition of caregiving includes children, you know, even though we, as internists, often are thinking about caregiving in terms of geriatric populations or disabled populations. Children is part of that nih definition of caregiving.
- And in the economics literature, when we talk about caregiving child caregiving is actually one of the most significant aspects of caregiving when we talk about caregiving as a determinant of participation in the labor workforce and caregiving with regards to gender equity in the labor market. Similarly, childcare is well recognized in the pediatrics. Literature as a social driver of health, particularly as it relates to early childhood development, outcomes the 1st time I ever really encountered childcare needs as a social driver of health outcomes for caregivers was when this was published in 2018. This was the 2017 Kaiser Family Foundation, Women's Health Survey and they started with surveying women about what the most significant barriers they were experiencing in attending appointments and picking up their medications and completing necessary care.
- And one of the most important findings was that work, leave, and childcare were actually a more significant barrier than transportation, which is really well discussed in the social drivers of health literature, and those childcare burdens were

particularly relevant for women of low income and racial ethnic minority backgrounds.

- And so this led our team in Texas to take a look at the existing literature. We conducted a scoping review to understand what is known about childcare as a social driver of access to health care.
- We started off with a very inclusive search, looking at not only the medical and public health literature, but we also included health policy Fora, and we ended up arriving at 92 pertinent studies that we analyzed for the purposes of this review and these are kind of the specs of what the literature showed us, and you can see there's interest in this topic that's been steadily increasing over time. We conducted the search in 2023. So not a lot was published yet, but I would wager that this has gone up even further, and we had 92 studies, of which about half were quantitative analyses, half were qualitative. There was some mixed methods overlapping in the middle here and about half of quantitative studies were utilizing survey research methods and cross-sectional research design. Very few were using causal inference methods with retrospective or prospective cohort studies.
- There were only 3 randomized control trials within the existing literature, and these 3, none of them were looking at childcare as an exposure of interest or an outcome. These were more looking at childcare as a component of trial design, a trial enrollment.
- So what did the literature show us? So we extracted 5 pertinent themes from our scoping review, so unsurprisingly. The most common topic was about how childcare posed a barrier to attending medical appointments. More than 2 thirds of studies, looked at that at appointment completion as their outcome of interest.
- Interestingly, there was a a significant number of studies that were looking at how alternative care, delivery models, namely, telemedicine, had the opportunity to kind of obviate or circumvent childcare barriers to attending appointments.
- A theme that we were not anticipating. But that did stand out was how childcare needs affect patients ability to participate in medical research. So there were a lot of studies that were looking at how childcare needs interfered with Rct. Enrollment, particularly for oncology trials.
- There were qualitative studies as well. Looking at how childcare needs was limiting particularly low income and minority populations with gaining representation and access to cutting edge treatments through medical research.
- I'm sure, for all the parents in the room who remember raising kids during Covid, and there were a few studies about how childcare needs were exponentiated during the pandemic and a school closure daycare center closure. It had trickle over effects, not only in patients ability to go to work, but also in their ability to go to the doctor.
- And then, lastly, the most significant theme that cut kind of across all 4 of these preceding themes was the relevance of childcare needs among marginalized populations, whether that be racial, ethnic minorities, immigrant refugee populations, women struggling with substance, use even criminal justice populations we identified some important gaps in the literature. So most of the studies. So far, you know, we're utilizing survey research methods, cross sectional designs or qualitative research methods which is probably appropriate. Given how little is known about the social driver of health thus far and we noted that childcare was often a secondary outcome or a covariate. It was very rarely defined as the key variable of interest in these research studies.

- Most of the studies represented in this in the literature thus far about childcare are set in North America and Europe. So developing countries, and how childcare needs affect health outcomes in those settings are not well characterized, and it's important to note that childcare barriers and gender equity and health outcomes in those developing countries may be very different.
- Importantly, a significant volume of studies. I think about 90% of the patients represented in the studies thus far were female, and nearly 2 thirds only looked at women, mothers, and female caregivers. So there's this lack of attention to the fact that men are also caregivers for children.
- And you know, there's not a lot known about intervention testing or rigorous policy evaluation with regards to health outcomes thus far.
- So we sought to understand what the child care. Barriers were like for our population at Parkland. Health which is a safety net health system in Dallas, Texas.
- It's important to recognize that childcare is a uniquely impactful social driver among our patient population. So this was a safety net population in Dallas County, one of the most highly insured communities in the country. In a medicaid non-expansion state more than half of the patient population identifies as Hispanic and about 30% identify as non-hispanic black.
- And in Texas, since you know, it's non-medicaid expansion, a lot of women will encounter preventive care for the 1st time through the context of pregnancy, because pregnancy is a medicaid, qualifying condition.
- And so that's kind of like this temporary period where women are insured and a lot of new problems will be identified, or the 1st time they'll ever get to experience preventive care. And then that insurance goes away, and then they have to navigate. Health needs that are unmasked during pregnancy. All while navigating those health concerns with a new child.
- So we conducted a needs assessment of childcare barriers in our population, utilizing a survey instrument heavily adapted from the Kff Women's health Survey, and what we ended up finding is that lack of childcare was the most common reason for missing or delaying a healthcare appointment in the past year per patient report, even more so than transportation or coverage and the survey respondents reported that they missed or delayed a mean of 3.7 appointments a year, of which most of those were wellness or preventive care visits like, I said, this is a high obstetric population, so prenatal care follows within the scope of these wellness or preventive care visits and you know there's a pretty frequent cadence of prenatal care visits among these patients and we asked patients to rate their how difficult access to childcare was compared to access to healthcare, and most of them rated childcare as more difficult to obtain than healthcare access.
- And then, importantly, almost 70% of respondents said that they had previously brought a child to clinic for a clinical appointment.
- So in response to this needs assessment, which was conducted in 2019, we had a very rare thing happen where the system responded very expeditiously to the findings of that study.
- So our health system ended up partnering with a community based organization in Dallas, and that was offering in home childcare support for women who are grappling with illness.
- And they ended up opening a no cost childcare facility that patients could use on site. At the hospital. The childcare facility opened in November 2020, and since then has served nearly 800 patients and the childcare facilities staffed by licensed

childcare professionals that are employed through the community-based organization. They also interestingly have a grant funded play therapist to help children who are grappling with parental illness and intervene on adverse childhood experiences.

- One of the unique features of this intervention is that it's really well integrated with the health system. So the childcare facility staff have limited epic access, you know, and there's an epic referral in place where I, as a provider, you know, if I identified a patient who said, I can't attend this appointment because of, I have to take care of my kids. I could place a real time referral to the child care center. And there's a very sophisticated dashboard for process improvement and referral tracking.
- Here's a schematic of what this hospital Cbo partnership looks like. So the health system owns the infrastructure, the it, the maintenance and security and then the community based organization owns the design of the space and the day to day operations.
- Importantly, when you're providing childcare services, they're responsible for licensure and liability insurance. And over here to the right, here's a snapshot of what the Emr Referral looks like on my end.
- So who have we served so far? And so we are serving majority women, and who are younger, you know, in their early thirties.
- Interestingly, about 2 thirds of patients are English English speaking, which is a lot more than our patient population. Our patient population is actually about 50% Spanish speaking. So and this is what it's all about, you know, like the patient stories of people utilizing this place. You know, one of the patient stories that really affected me was this 1st story woman in her thirties with Lupus, who had been lost to care because of her childcare childcare needs and she made it to Clinic one day and had left her son in the car while she went to see a rheumatologist, and then she needed to be admitted from clinic because she was critically anemic and required a transfusion and she had left her son in the car while she was hospitalized. That led to a Cps inquiry for child endangerment. And ultimately our health system's childcare facility was utilized to be part of that Cps case resolution, you know. That's like a real intervention that kept this family together.
- This is another patient story. A woman in her forties who underwent a mastectomy for breast cancer. She was told. She can't lift her toddler son because she's unable to lift anything heavy after surgery. She utilized the childcare facility, not just to attend her appointments, but also for respite, care while she was post-OP last one. You know there are men who utilize this facility, a single father of 5 kids who has a history of liver transplant. When his partner passed he was really, he has become really reliant on this facility, so he can navigate all his transplant appointments.
- So we have this incredible gift of a intervention that's in place. And that led us to develop some research questions. For how we can understand child care as a social driver of health better in the context of this intervention.
- So some of the preliminary research questions we developed what are the other health related social needs that our patients with child care barriers are experiencing.
- Who are these patients who are experiencing child care barriers? And what do those childcare needs look like? What what do they do for childcare? If this didn't exist?

- And then what effect does this intervention have on clinical outcomes like appointment adherence when we drill down to the population of patients who are experiencing childcare barriers.
- So let's start with the 1st question kind of the easiest 1st step to understand other health related social needs experienced by patients with childcare barriers.
- We started by just doing a very simple screening questionnaire, the accountable health community's Cms screening questionnaire for patients who are utilizing the childcare facility already. So we screened 134 patients and we had a hundred percent response rate of those patients screened, 84% were identified to have at least one other health-related social need. Aside from childcare.
- And of those 84% of patients, 62% agreed to receiving additional assistance from social work with the identified health related social need.
- And among those patients who agreed to social worker assistance, 44% were linked back to a social worker within their existing clinic and 56% were supported by a social worker who is on site in the childcare facility. So I think that last point really emphasizes what a well integrated health system intervention can do, we were able to shift some of these patients with identified need back to the social worker in their clinical home.
- But for the other half that maybe did not have a reliable place where they're seeking care. There's an added layer of support with a social worker that was integrated already in this, in the child care facility.
- What about the patients? We are not reaching through the childcare facility. And you know this came up because it was hypothesized. Maybe there are other social needs that are interfering with patients who have childcare barriers from accessing this intervention. Given that, it's on site at the health system.
- And so we sought to compare those social needs among patients who had enrolled in the childcare facility, and see whether they did or did not utilize. So by enrolling. They had indicated that they do have childcare needs. But did they ultimately use or not use the facility? And we would compare social drivers of health data among the 2. How do you get social drivers of health data for patients that you're unable to reach?
- So we utilized geospatial data utilizing the Cdc social vulnerability index or Sbi. So this is a place-based marker of social vulnerability that would help us approximate what the social drivers of that non-utilizer population might be.
- We conducted this study in the 1st 2 years of this childcare facilities, operations. It was a cross-sectional analysis with a regression design and our exposure was utilization versus non utilization of childcare services at the childcare facility, and our outcome of interest was Sbi, and we slice that up a few ways.
- So here's a map of Sbi in Dallas, and so South Dallas is the most underserved part of Dallas, and that's reflected with Sbi here at the dark blue and then the black dots and the white dots show us where utilizers and non utilizers are not a clear pattern yet with this picture.
- But then, when we went and analyzed Svi at a more granular level, we were able to detect some differences. So we got an early clue that the non-utilizer population. So these are patients with childcare needs, but did not utilize. Our childcare facility had higher levels, though not at the threshold of significance, of social vulnerability.
- We ended up looking at the top decile of social vulnerability for these patients, and we ended up finding that that top decile or extreme levels of social vulnerability was more pronounced in the non-utilizer population, and when we broke it down by the

parameters that comprise Sbi for social vulnerability the theme of housing and transportation is really what was driving the differences between in utilization of this childcare facility.

- So there are important limitations with an analysis like this, like I said, Svi is a geospatial marker of social vulnerability. It does not mean that every person in that community is experiencing the same level of social vulnerability. It's an approximation of social drivers of health.
- Unfortunately, there isn't great segmentation within the theme of housing and transportation. It's hard for us to discern whether housing or transportation is driving that difference, and even the way that they define housing or transportation parameters. It's not a comprehensive assessment of a patient's ability to access transportation so overall. You know, those of us who do a lot of social needs work. We recognize very acutely that we need more nuanced indices of social drivers of health, and ideally, we need individual social drivers of health data in conclusion, we found unsurprisingly that patients experiencing childcare needs carry high levels of social vulnerability. And those childcare needs coexist with a lot of key social risk factors like food, insecurity, financial strain, housing, instability, transportation barriers.
- It's important for us to think about how other intersecting health related social needs affect implementation of system interventions for social driver of health. So for us, you know, like from a programmatic perspective, we thought a lot about how transportation may be interfering with patients ability to leverage this resource and that gets very complicated, because if the childcare resource is on site at the health system. The transportation kind of like takes precedence over any patient's ability to show up and utilize a resource and go to their appointment. But when we think about interventions for transportation to promote appointment, attendance, and utilization of a resource like this it gets complicated. When there's a child involved, we have to think about car seats we have to think about. Public transit may not be a safe option for patients in that respect.
- I think a good lesson in general is that an intervention for one health related social need is an opportunity to screen and address others. A lot of social drivers of health research is really laser focused on one. And we know that food insecurity, you know, there's an opportunity to screen and address others. Social drivers of health alongside any food, insecurity, intervention.
- All right. So what about the clinical effectiveness piece? So our questions are which patients need this intervention?
- And does this intervention support appointment adherence. So I'm defining appointment adherence as completion of appointments, reducing no shows and reducing cancellation of appointments because of social drivers of health.
- The space that we chose to examine these questions is in the context of cervical cancer screening. The reason for looking at cervical cancer screening is it's 1 of the most common preventive health needs that affect the demographics that we think are most pertinent for childcare barriers, women of childbearing age.
- It's something that all women of childbearing age are going to need and cervical cancer screening is fraught with inequity and cervical cancer screening is complicated. It requires retention across many appointments and clinics, and critically a handoff between primary care and gynecology and the research shows that we lose most women with abnormal results at the point of abnormal results in primary care and hand off to gynecology for colposcopy.

- In fact, in a lot of low income populations similar to our population at Parkland, it suggests, like more than half or up to 60% of patients are lost at this point, and the attrition that's occurring there is really due to health related social needs that interfere with completion of that diagnostic continuum.
- So we proposed a pragmatic, patient, level, randomized control trial, studying our intervention which is navigating women to our health system, integrated child care, facility.
- Our control population gets usual care for which there's no standardized mechanism for childcare, and often means they need to reschedule their appointment because of a child care barrier our study population are patients with abnormal cervical cancer screening detected in primary care at the point of referral to gynecology and we screen that study population for childcare needs with a baseline survey prior to their initial gynecology appointment.
- We're targeting enrollment of 100 participants. And thus far. We've enrolled 62 since our trial launched a year ago, and our primary outcome of interest is showing for that initial gynecology appointment. So, traversing that point of attrition. We're also collecting a lot of meaningful data regarding completion of indicated and dysplasia procedures like a leap or cold knife cone.
- And we're also monitoring how this impacts long-term show rates. And we also have a follow up survey. We're collecting a lot of rich data about patient-centered outcomes and what this intervention means for their trust in the system.
- So we have a lot of rich baseline survey data about the experiences of women who are experiencing childcare barriers that I'll share with you. Now our objectives with this baseline analysis was to describe, you know, just very simply describe what the women experiencing childcare barriers are like and build upon the prior literature with survey research methods showing how childcare barriers lead to missed and deferred appointments. We wanted to strengthen that association, utilizing our Emr data.
- And so this was a 6 month, 6 months of data and our 1st 6 months of the trial enrollment. It's again a cross sectional analysis, utilizing regression methods.
- Our exposure was childcare barriers reported by patients in our screening survey, and our outcome of interest was appointment non-adherence, which was defined by Emr data, and these were patient. No shows or patient initiated canceled appointments.
- This is a busy slide, but I'll kind of call out the key takeaways. Baseline characteristics of women by self-reported childcare barriers. So women with childcare barriers on average, were younger, unsurprisingly, there were no significant racial ethnic differences or language differences by experience of childcare barriers.
- Women with child care barriers were more likely to be covered by Medicaid, which, tracked very closely with the experience of pregnancy within the past year since pregnancy is a medicaid, qualifying condition in our state.
- And what do these childcare needs actually entail? So women who are experiencing childcare barriers to appointments. They have an increased number of children, and those children tend to be younger.
- And one of the things we sought to examine is what the childcare needs of nontraditional caregivers look like. So we defined caregiving pretty inclusively. And we weren't just looking for mothers. We recognize that grandmothers and there are a lot of nontraditional family structures where child caregiving is happening. But one

of the interesting findings we've so far is that grandparents who are taking care of their Grandkids aren't missing appointments because of those childcare needs the women who are missing appointments because of childcare barriers. It's because of their own child. There weren't a lot of differences in sources of collateral support, like other sources of caregiving, to help you out with childcare responsibilities?

- And then we asked, women, what have you done in the past for getting childcare around your appointments?
- And women who are experiencing barriers to appointments are the ones who have experience bringing childcare children to the clinic for their appointments. Also important finding is how important the school year is. You know, the school schedule is for a source of childcare for these women so these are unadjusted outcomes of appointment adherence. So the top is volume of appointments scheduled, and women who reported childcare barriers had a higher number of scheduled appointments, and that tracks very closely with a higher rate of appointment, not adherence. So no shows and cancellations the types of visits. This is unadjusted that were most commonly attributed to no shows and cancellations. The higher rates were in primary care in women's health visits, interestingly imaging appointments also had a high rate of non-adherence as well among women with childcare barriers.
- And so we ran an adjusted model with this outcome of appointment, non-adherence, and what we found is after adjusting for age, relationship, status, language, insurance and comorbid diabetes. A patient reported experience of childcare barriers had about 9% higher non-adherence rate to appointments.
- So there are limitations with this analysis. Obviously the single center population with a majority uninsured majority, women of color represented in this sample, which may not generalize to every population, but also puts a spotlight on patients that probably would benefit the most from this sort of intervention.
- Importantly, we did not have other social needs. Variables in this data set, our system started collecting epic Sdoh data about midpoint through the study. So we don't have reliable Sdoh data for other variables like transportation or financial strain.
- And then, yeah, this is our study population are women with abnormal cervical cancer screening, who are higher needs. So you know again, that affects the generalizability of our findings.
- In conclusion, you know, to our knowledge, this is the 1st study to link survey screening of childcare barriers with appointment outcomes with Ehr data.
- We found that younger women with younger children are most likely to be experiencing childcare barriers and these non-adherence to these appointments related to childcare barriers may contribute to downstream disparities that we're experiencing clinically.
- And as a primary care physician, I'm most moved by this fact. Preventive care was the thing to fall fall by the wayside when women were experiencing childcare barriers.
- So our clinical trial, studying the intervention of navigating women to the childcare facility, is ongoing. We have a lot of lessons learned already about implementation of an intervention like this.
- And you know, one of the interesting questions that came up is how subjective defining a childcare barrier can be for a lot of women. We had a lot of women who would respond, oh, I don't need childcare for my upcoming appointment, but with a

little additional probing they would say, Oh, my husband is going to stay home from work and take care of the baby.

- But that's actually like multiple hours of lost wages for that family who is dependent on his sole source of income. So it's actually a barrier, even if they don't reconcile it that way from their perspective a couple of times. Something that has come up is women's reliance on unsafe plans for childcare. So again with a little program. I don't need childcare. My older son will take care of the baby. Well, actually, with a little additional questioning, the older son is 9 years old, and there's been some intervention from our part on making sure. You know, that kids aren't ending up in an unsafe situation during a research recruitment.
- There's a very high administrative burden in enrolling in an intervention like this. So I mentioned the licensure and liability considerations with offering child care services.
- You know. Similarly, patients have to do a lot of paperwork to get an intervention like this to enroll in a child care center like this.
- You know, we ask for identification, which can be a barrier for some, you know, undocumented populations.
- and then we also have difficulty with getting vaccine records. So childhood vaccine records is an important requirement to utilize this childcare facility. And that's tough for a lot of patients to navigate and then making sure that we have sustainable funding for an intervention like this. So this childcare center is funded philanthropically in Dallas. And you know we're lucky to have like good donors for this, but it raises questions about sustainability in the long term.
- So our hope through this work is to show that there's this kind of proximal effect of helping women attend their scheduled appointments in the cervical cancer screening, diagnostic continuum, complete the recommended procedures that they need. There's opportunities in the future to kind of lengthen our, follow up interval and see how this intervention, early on, can affect downstream differences in progression to cervical cancer, and we can apply similar study design to other disease states.
- Ultimately, our goal with this work is to show that there's a return on investment for addressing childcare needs within healthcare systems. And the analogy I like to share is like the initial public health research that showed transportation interventions really had a significant clinical and cost effectiveness impact. And that research is what led to Medicare and Medicaid transportation. So ultimately, payers may be it may make sense for payers to take this on within the scope of of their Sdoh interventions. If it helps patients get the care that they need.
- So I'd like to acknowledge we have a very large research team at parkland, the center of innovation and value. At Parkland. My mentor, Kavita Bhavan, Kristen Alvarez, is a pharmacist by training, but she really is like an innovation. Guru and was integral in developing this intervention at Parkland. We have a lot of great collaborators at Ut Southwestern, and my mentor at Ut Health, where I got my Mph. Many years ago, was still working with my mentor and really have to thank our community based organization partners at Annie's place. You know, the childcare facility itself. You know, this sort of research isn't possible unless there's a center to study.
- And lastly, I want to thank my mentorship. Since I moved to Unc. Seth Berkowitz, who's a social, needs expert nationally, and Dan Royland, who is a cancer screening expert as well.

- So here are some references and I am so thrilled to take your questions and hear your feedback. Thank you so much for the opportunity to share my work.

UVA Grand Rounds

01:08:55

Thanks so much, Dr. Ganguly. That was an excellent talk. I'll start by asking a question, and then we can also go into the chat to see what other questions the audience members have. I wanted to ask you a little bit more about the response that Parkland had to initiating this like intervention of bringing Annie's place, and, like the logistics involved, or like how how other health systems like Uva can potentially model that.

Anisha Ganguly (she/her)

01:09:25

Yeah, so you know, like, I like, I said during the presentation, it was just so incredible to see a health system responds so quickly to like day, you know. Pretty simple descriptive analysis of patient experiences about child care barriers.

- The whole thing really started as a water. Cooler conversation in the Parkland C-suite across. You know, our innovations team was like, wouldn't it be cool if we had a daycare center for patients?
- And the CEO was like, Yeah, that's a cool idea. See if you can find an organization that can pull it off.
- I think some of the, you know. So that executive championship is so important for making something like this happen. I also think there's something liberating about doing this work in a safety net setting where? Everything you're doing is to reach, like the last mile patients, the patients that are hardest to reach.
- and our CEO at Parkland. Fred Cerise, he always says this thing. There's something freeing about working in a place where everything you do loses money. So you're you're working to reach patients. And if you have the philanthropic funding in place.
- The earlier we catch patients. It's working in a capitated system. Catching people earlier saves us a lot more money downstream, so that little intervention of helping people show to their appointments. The daycare is funded by the cbo. The dollars do make sense, you know, it ends up working out for the system.
- And you know, our pilot data in this setting, I'm hoping will help make the case for other academic centers across the country. We're planning on running cost effective and effectiveness analyses. Once we analyze our trial outcomes.
- And I'm hopefully, I hope you guys can take that data to Uva leadership.

UVA Grand Rounds

01:11:30

No, that's excellent, thank you. And then we'll go into the chat. So we have a question saying, wondering about the coexistence of childcare and the same caregiver being responsible for adult family members who require care, elders or adults with debility and chronic care needs. Are you hoping to explore those dual caregiver roles and barriers.

Anisha Ganguly (she/her)

01:11:49

Absolutely. So. That's a great question. And I think the question refers to the sandwich generation problem like where people are pulled in 2 directions where they're taking care of their kids, and they're taking care of their elder parents at the same time. That certainly has emerged in our baseline screening, where people like. Well, you met this one need but actually, you know, taking care of my sick mother-in-law is interfering with me, coming to the doctor. Another angle to that is adult dependent care. So you know, sometimes we would screen people, for do you have children to take care of? And people would say, well, I have a 24 year old, son, but he's disabled. I can't leave him alone for this appointment so it's not just elder care. It's dependent care, and I think that really emphasizes why you need holistic interventions. You know you can't just intervene on one thing. It needs to be more comprehensive.

UVA Grand Rounds

01:12:51

Dr. Ganguly. It's Dr. Laut here at Erc. Step us back to the workflow of the screening, because it sounds like the 1st step in recognizing the need is to screen, for it was the screening being conducted by the visit provider by clinic staff. How did you guys 1st start out with recognizing the problem.

Anisha Ganguly (she/her)

01:13:14

Yeah, so the screening happens. By the research team. And so, right now, we're not screening. You know, this is an oversight from our systems. Perspective. Childcare isn't something we're routinely screening. For in our epic Sdoh wheel.

- But that's why we're looking at it from a research. Perspective. So you're a grant funded research assistant who looks at these referral reports. These are women who have upcoming appointments in gynecology, and she systematically screens those patients for eligibility, and also collecting all that rich descriptive data.

UVA Grand Rounds

01:13:54

Great. Yeah. And the other thing I was wondering about. And obviously this wouldn't help for some of the more women's health, focused diagnoses and procedures that you were talking about, but it looked like there was maybe a mild difference in telemedicine, but it seems like maybe an initial step to overcoming some of these barriers for non-procedural visits.

- If you recognize the barrier, would be more proactive. Use of extending telemedicine visits to patients with these barriers.

Anisha Ganguly (she/her)

01:14:27

Absolutely

- So it's the telemedicine space is really interesting. And it's come up a lot. We've done some subgroup analyses and prenatal populations. And one of the because there's been a big advent of telemedicine and remote, remote, patient monitoring for prenatal and obstetric care.
- and one of the difference or the improvement that we see with telemedicine is a little weaker than we'd expect, and there may be maybe many factors for that number one. We're dealing with a population that has a lot of digital divide. So you know, is telemedicine feasible for this population. I would say it's probably feasible than more feasible than a lot of people realize.
- And then, second of all, it's not telemedicine is not perfect when you're navigating. Childcare needs in the home as well. So you know if you're dealing with an infant and trying to have a telemedicine conversation with your provider, it can be equally distracting, as in the clinic, and so every layer helps right, like every added layer of convenience, is a win for the patient.
- But you need to also recognize like implementation is key. Are you able to deliver that innovation to the PE- people who need it the most and there may be some residual barriers as well got it.

UVA Grand Rounds

01:15:49

I think we were all in this room picturing the disruption of a frustrated toddler similar in the exam room to the telemed space.

Anisha Ganguly (she/her)

01:15:59

Right, right, exactly.

UVA Grand Rounds

01:16:04

I'll be able to hear me.

- We have another question coming up from the audience in person.
- Hey, there! I'm Kevin, one of the 3rd year. Residents. Thanks for coming and talk to us about an under recognized population. It seems one that I haven't screened for before. Just curious about kind of the logistics of the program. I know you guys are still in the trial phase. But how does it look? When is the daycare program running? Do you set aside certain, like days of the week or hours of the week, to try and limit
- costs associated with the daycare. To make this like a feasible thing going forward. Just how often is it offered? And what's that look like.

Anisha Ganguly (she/her)

01:16:42

Yeah. It's Monday through Friday, 8 to 5, and if a patient has an appointment in the morning, they get 4 h of day. Free daycare. If it's in the afternoon, 4 h of free daycare. There are a lot of like additional wraparound services in the daycare, you know, so they will get at least one snack for free, if not a hot meal.

- They often have, like a lot of donated like supplies, like diapers, or you know, food, pantry resources that are donated, that, you know, clients of the center can utilize.
- So the access is really good. I think the challenges, you know, with some things that I encountered with my patients, for example, was like a surgery that was going to go on for 8 h and making sure that there's sufficient coverage for that child, recognizing, you know, that there may be something could go wrong right? And you need a more flexible plan. So
- there, I would say, like the the program managers at the center are very amenable to working with patients for individual circumstances, but you know, always could be better.

UVA Grand Rounds

Awesome. Thank you.

- All right. I think we're right up on time. But, Dr. Ganguly, thank you so much for visiting us virtually. This was an excellent talk.

Anisha Ganguly (she/her)

Thank you so much for having me.

-