



Identifying approaches for mothers in the informal economy to sustain their livelihood and remain healthy and for their children to achieve their development potential.

Durban, South Africa.

2019



Source: Jonathan Torgovnik by permission Asiye eTafuleni, 2018

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BACKGROUND

For the past 3-years Asiye eTafuleni (AeT) has been involved in a collaboration called Urban Livelihoods and Nurturing Care projects (uLiNCs), together with international partners; Women in Informal Employment Globalising and Organising (WIEGO), Indian Institute for Human Settlements (IIHS), Kenyan National Alliance of Street Vendors and Informal Traders (KENASVIT), and led by the World Health Organisation (WHO). The uLiNCs partners have been proactively working with informal workers in a number of different sectors and settings, researching the local limitations to providing the critical components of nurturing childcare, hoping to identify effective, feasible, acceptable and scalable solutions that enhance the ability of mothers working in the informal economy to help their children reach their developmental potential while sustaining their own livelihoods and maintaining their own health. AeTs focus has been on street vendors and market traders in Warwick Junction (a major transport hub in Durban around which 9 informal markets have developed).

This has been a logical extension of 10 years of AeTs previous work in support of the informal economy in Durban.

The initial work and funding was focused on the importance of breastfeeding, but developed over time and became much broader, emphasizing the creation of safer spaces for children of informal workers, developing financial support mechanisms for informally working mothers, improving effective knowledge for practice, helping mothers to better manage stress and their complex lives, improving policies around maternity leave, connecting mothers to health services in informal work settings and creating awareness and knowledge within informal worker communities around childcare issues.

Disclaimer – the term ‘mother’ is used throughout the document to refer to mothers as well as all other primary caregivers, for instance; fathers and grandmothers.

AeT TERMS OF REFERENCE | WHAT WE WERE ASKED TO DO

Early funding allowed for initial research that informed a contextual understanding, and the development of more detailed research and project intentions; exploring childcare practices amongst mothers who are engaged in informal work. This research marked the start of AeTs involvement in the realm of childcare.

The research was written up in a paper co-authored by members of AeT, Centre for Rural Health (CRH), WIEGO and WHO, and was titled, ‘A descriptive study to explore working conditions and childcare practices among informal women workers in KwaZulu-Natal, South Africa: identifying opportunities to support childcare for mothers in informal work.’ The paper was published in 2019 in BMC Paediatrics.

In September 2018, AeT received commitment to project specific funding from WHO in respect of *“Identifying approaches for mothers in the informal economy to sustain their livelihood and remain healthy and for their children to achieve their development potential.”*

The specific areas for investigation were:

- *To detail the infant and young child feeding practices of cohorts of mothers working in the informal economy;*
- *To describe the childcare environment for children of mothers working in the informal economy;*
- *To describe the working conditions and working environment of mothers working in the informal economy;*
- *To understand barriers to WHO recommendations for breastfeeding infants and young children among mothers working in the informal economy;*
- *To identify potential approaches for enabling mothers working in the informal economy to breastfeed infants and young children according to WHO recommendations*

The funding agreement was signed in February 2019.

DEFINING THE PROBLEM

Mothers and infants require physical and temporal proximity to ensure better chances of infant survival, for infants to thrive and for mother's physical and mental well-being. Proximity, specifically, allows mothers to breastfeed their infants in the first year of their life and allows them to monitor infants' nutritional intake. Breastfeeding and complementary feeding are intrinsic to the health and development of infants.

Lack of proximity and unsafe and precarious work environments result in mothers halting breastfeeding, reducing breastfeeding and feeding their infants unfavourable nutritional alternatives which leads to poor outcomes for child health and development. In addition, these scenarios put immense pressure on working mothers, leaving them with high levels of stress.

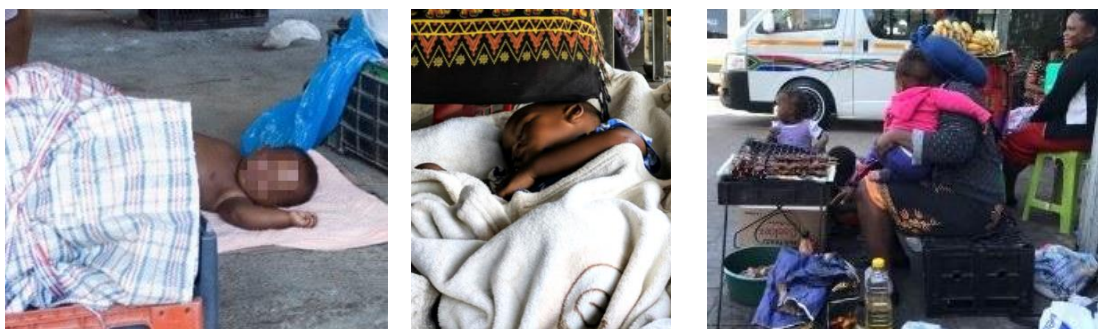
Approximately 450 000 commuters travel through Warwick Junction, a transport interchange and informal trading hub situated in the centre of Durban, every day. The livelihoods of around 6000-8000 informal workers are sustained in the area. Of those, more than half are women. There are a number of women in the markets of Warwick Junction who are not only engaged in productive labour (i.e. as informal traders), but also reproductive labour (i.e. raising a child). These women have a right to work and a right to physical and mental health and their children have the rights to care and other interventions that optimise their health and development. However, the settings in which these mothers work, leave them vulnerable to gender inequity, environmental hazards and structural disadvantages which often compromise their ability to care for their children in the way they would choose, as well as compromising their own health.

Informally working women are not granted any of the maternity benefits that formally working women are (usually) entitled to. The fact that these women are unable to take any time off work after giving birth without sacrificing their income and trading spaces means they are forced to either put their children in the care of a family member or a childcare facility, or take their child to work with them. Neither of these options are ideal. Their inconsistent and often low income means that the quality of the childcare facilities they can

afford is not likely to be high, and bringing up a child on the streets of Warwick Junction is unsafe, unhygienic and does not offer the child the stimulation that is so vital for optimal development.

The overall WHO and uLiNCs project goals are broader, however it emerged through the ongoing work of the collaborative partnership that AeT would focus on the creation of 'safer spaces' as one way to improve the quality of childcare in an informal working environment while maintaining proximity between informally working mothers and their children. This was borne out by the ongoing research.

Given the constraints of the policy and physical environments, the notion of 'safer spaces' became pivotal to the thinking and liberated the team to look for solutions from first principles, taking cues from the solutions that informal workers already deploy, redefining assumptions around childcare provision, hoping to advocate for workable, feasible and appropriate solutions.



Source: Asiye eTafuleni, 2019

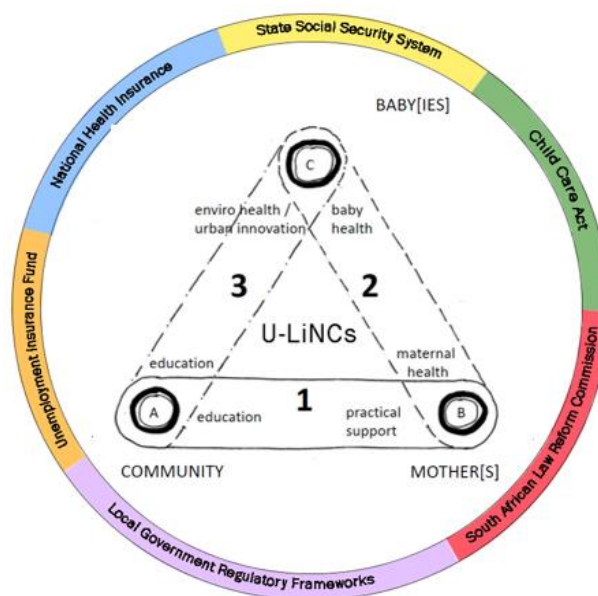
The narratives in this report are an amalgamation of information taken from the transcripts from the focus group discussions. The anonymity of the mothers has not been compromised because each narrative is a combination of information obtained from more than one mother.

Mother X is not new to motherhood. The small child that she brought with her to the focus group discussions is her fourth. Her family offers her a strong support system when it comes to looking after her children, however, in the workplace she experiences some hostility from her fellow traders. Some of her co-workers are unhappy with her bringing her child to work because the child gets in their way and touches their stock. Others are unhappy with her having a child at all, as they know she is not married, and they believe she has been irresponsible to have children out of wedlock. Then there are those that think that Warwick Junction is not a suitable place to bring a young child and that she should leave the child at home or at creche. However, mother X is unperturbed by these opinions. She thinks the belief that one needs to be married before they have a child is old fashioned, and she does not want to leave her child at creche because she is very sceptical of the quality of care that children receive at creche and she would worry all day if she was unable to check up on her child. So, her child has slept and sat and played next to her trading space in the market since she was 3 weeks old. She is now almost 2, which is the same age mother X was when she started coming with her own mother to the market. All her other children also spent the first few years of their lives in Warwick Junction and 2 of them are now at university. All of her children were breastfed, which is another reason that she has chosen to keep them at work with her – if they went to creche they would not have been exclusively breast fed and she is aware of the health benefits of breastfeeding.

WHAT DID WE WANT TO ACHIEVE?

As described above, the current situation on the ground is that children are being brought up in environments which are not conducive to optimal health and development, and their informally working mothers are not in a position to be able to take maternity leave, nor can they afford to send their children to the formal childcare facilities which currently exist.

Our aim is to provide an affordable childcare option within an informal work setting, which allows informally working mothers and their children to be in close proximity to one another while also allowing the mothers to continue earning a livelihood.



Theory of change

If the proposed interventions are taken up successfully, they will lead to improved health and developmental outcomes for the children of informally working mothers in Warwick Junction, reduced maternal stress because the mothers will have a safe, affordable childcare option, and they will allow mothers to maintain/increase the degree of proximity between themselves and their children.

Each apex in the Theory of Change triangle – community, mothers, babies – has independent as well as dependent needs. uLiNCs integrates these independent and dependent needs. The entire intervention needs to be cognizant of the regulatory and policy frameworks which make up the circle in the Theory of Change diagram.

AeTs APPROACH AND METHODOLOGIES

AeT exists to empower the working poor to become co-developers in their working environments, advocating investment in urban planning and design interventions, and deep consultative and participatory processes. AeT believes these approaches can set a trajectory for meaningful socio-economic development for informal workers operating in public spaces while enhancing the public domain through facilitating better urban management; thus leading to an improved urban experience for all.

AeT uses 4 key workstreams: **inclusive design, urban advocacy, urban education and urban intelligence**. Inclusive design is enabled by the other three workstreams.

Inclusive design

Urban planning and design are key drivers of change that can support the livelihoods of informal workers. AeT brings communities together through inclusive planning and design processes in order to build a better, more sustainable urban future for everyone.

AeT believes that informal workers and the working poor must have a voice in urban planning and design processes. AeT works to provide a facilitating role – as well as an active role – in promoting informal workers voices in urban design and planning.

Urban advocacy

From day to day facilitation, to longer-term strategic litigation, AeT supports both local traders and officials to come together in pursuit of a city that works for everyone. This work is not only about changing attitudes and perceptions of informal trading and use of public space, but also about empowering informal workers to achieve the city they want.

AeT works to increase the voice and visibility of informal workers within urban planning and policy processes, and to change attitudes and perceptions about informal work among policy makers, educators and built environment professionals.

Ultimately, AeT's advocacy efforts always focus on inclusivity and building capacity among informal workers to empower them to become their own advocates, and to promote environments and processes that embrace workers' voices and engagement.

Urban education

One of AeT's self-professed highest purposes is to challenge assumptions regarding the way cities are planned, designed, managed and used. Locally, this could mean fostering increased awareness and cultural bridges in cities like Durban, whose maps are drawn by a history of racial, political and socio-economic divides. Regionally, this could mean introducing built environment professionals and students of all levels to informal economy dynamics in the context of an urbanist agenda. This could also mean active exchanges with decision makers of the future.

Urban intelligence

AeT works to widen and deepen urban intelligence so that local, national and international stakeholders can engage in more informed urban dialogue, planning and design processes. This work is driven by a curiosity about a particular urban environment and reading that environment in order to better understand how informal workers and others operate within this context. New understandings provide analytical clues about how to improve the environments for users and the community.

Urban intelligence is promoted through engagement with local stakeholders, passive and active research in the urban environment, and creating opportunities to share learnings. AeT uses a specific methodology in urban intelligence gathering that includes: curb side knowledge, focus groups, surveys, formal and informal discussions.

These tools help provide a diagnostic for how an environment should be co-shaped, to celebrate and render more functional the environment for informal workers and the participating community.

"In most cases" Richard (AeT team leader) says, "the street solution just needs a bit of sophistication, and – in some cases – validation."

OUR INVESTIGATIONS AND DISCOVERIES

The whole project is essentially a research enquiry. The Centre for Rural Health (CRH) at the University of KwaZulu Natal (UKZN) was commissioned to conduct the academic research, with assistance from AeT. This was especially to engage with a cohort of informally working mothers. AeT conducted fieldwork which was focused on the informal working environment and conditions. We also engaged with other organisations working in the urban childcare space, and with the various regulatory frameworks.

What we learnt contributed to an iterative process to develop a design brief and prototype design - which has been manufactured. Stakeholder engagement around the prototype will further inform the design process as well as test the regulations, which will inform ongoing advocacy efforts. Exchanges with the international collaborative group is ongoing, and there is now funding committed via WIEGO to pilot the operation of the prototype on the ground for 6 months.

Academic Research (urban education)

CRH designed the research methodology together with AeT, and arranged for ethics clearance through UKZN. The entire research process, discussed below, took approximately 5 months. The cohort of working mothers who were invited to take part in the focus group discussions (FGDs) and the co-workers and other stakeholders who were asked for in-depth interviews, were identified through members of the AeT team spending time on the streets of Warwick Junction.

AeT's social facilitator initially noted all of the mothers he was currently aware of and made an effort to seek out new mothers to add to the list. The mothers were selected based on the fact that they had their children with them at work and the co-workers were selected based on their proximity to the mothers who bring their children to work with them. At the initial meeting, each person's name, age, cell-phone number as well as the age and gender of their child was recorded.

FGDs and in-depth interviews were conducted with informally working mothers as well as their co-workers and other relevant stakeholders. In total there were 10 FGDs conducted – with 21 informally working mothers who participated in the discussions - and 8 in-depth interviews conducted with co-workers and stakeholders.

There were 3 different types of FGDs conducted; 'timeline activity', 'support activity', and 'photovoice activity.' The mothers were divided into 4 groups depending on the age of their children – there were two groups (5 in one group, 6 in the other) of mothers who had children over the age of 1, and 2 groups (6 in one group, 4 in the other) of mothers who had children under the age of 1. Each mother participated in a 'timeline activity' and a 'support activity.' 5 of the mothers with children over the age of 1 and 4 of the mothers with children under the age of 1 participated in the 'photovoice activity.'

The in-depth interviews were conducted in the markets of Warwick Junction, at the stalls of the informal workers who were being interviewed. The FGDs took place in AeT's project office, which is an extension of the regular office.

The in-depth interviews and FGDs were facilitated by 2 researchers from CRH. The interviews took between 20 and 40 minutes to conduct and the FGDs lasted between 1 and 2 hours. The mothers were invited (with a physical invitation handed to them by AeT team members) approximately a week before the FGDs took place, then they were reminded a day or two before, usually over the phone.

The mothers were given a snack and a stipend of R150 (to supplement or their loss of income whilst they were attending the FGDs) each time they participated. Some of them brought their babies with them which presented a slight challenge as some of them became restless. Another challenge was that the mothers were often late and in some cases they did not arrive at all. All the mothers are informal traders and were sometimes unable to leave their stalls at the time of the FGDs or they had transport troubles or their children were sick on the day so they needed to attend to them.

A potential limitation was that the mothers, co-workers and stakeholders who took part knew that AeT was involved in the project which may mean that they adjusted their answers.

This research has been written up as a report, and another paper may be published to share the learning.

Current Childcare Facilities in the CBD and Warwick Area

AeT engaged with the 'Point and Inner-city ECD (Early Childhood Development) forum which is an important voice for ECD in Durban. The forum has been in existence for 2 years and works closely with the municipality and various other stakeholders in order to share information and experiences, with the intention of coming up with solutions to the problems that informal ECD facilities are facing. There are representatives from approximately 40 inner city ECD facilities/pre-schools who are part of the forum. According to the hosts of the forum, there are a large number of childcare facilities operating in the Durban inner city which are not compliant with the by-laws, not out of choice but out of a dire lack of funds and/or space. These facilities demonstrate the massive demand for childcare options in the inner city. Makabongwe preschool is one of the few exemplary childcare facilities in the inner city – it accommodates 168 children, some of whom are children of informal workers. The school has reached maximum capacity but the demand is high – according to the principal they are constantly getting requests from parents which they are forced to turn down. Unfortunately, Makabongwe is unaffordable for many informal workers. Many children receive state subsidies however, the application process and administration of the subsidy is very onerous. Note that only formally registered ECD facilities are eligible for subsidies.

AeT conducted a desk-top investigation into privately run ECD and childcare facilities in informal settlements and the inner-city, especially for cost comparison purposes. According to this research, the average cost of sending a child to a childcare facility is R400 per month. In some cases, but not all, this includes meals.

Municipal By-laws

The eThekweni municipality, in which Durban is situated, has by-laws regarding the establishment of childcare facilities. The by-laws can be found here – <https://openbylaws.org.za/za-eth/act/by-law/2015/child-care-facilities/eng/>. The by-laws set out specific regulations which need to be adhered to in order for the childcare facility to be registered by the Department of Social Development (DSD), or certified – with a health certificate – from the Department of Environmental Health. Once a facility is registered, it qualifies to receive a grant from the DSD which is R17 per child per day, however grant allocation is not guaranteed. There is no overall policy for ECD in the municipality.

Summary of by-laws

- Facility needs to be issued with a health compliance certificate from the municipality. If the facility caters for six or less children, it does not need to be registered in terms of the Act.
- Indoor play area needs 1.5m² of free floor space per child. Outdoor play area needs 2m² of space per child. If outdoor area is not possible can add additional 1.5m² of indoor play area per child.
- Children over 3 years old and under 3 years old must be separated.
- Informal structure must be stable, waterproof, sufficiently ventilated, constructed of materials which are safe, supplied with a portable fire extinguisher or other appropriate fire-fighting equipment, does not contain any physical features which present or might present a risk to children.
- Floor must be a smooth, impermeable surface that is easy to wash.
- The ECD must have sufficient, safe indoor play equipment.
- If there is a sewer system and water supply, one toilet and one handwash basin must be provided for every 20 children. Where there is no sewer system or running water, a chemical toilet/other approved alternative must be provided and 25 litres of potable water (per day) must be supplied. Washing facilities need soap, towels, self-closing bins.
- If children are bottle fed, the bottles must be stored in such a manner as to prevent contamination and spoilage.
- Need to have adequate and suitable storage space.
- If full day care is provided every child must have a resting or sleeping mat/mattress made of waterproof material and covered with a removable, washable cover.
- Fencing around the facility must not be less than 2 meters high. The fence must have a gate which is self-closing and self-locking.
- For children who are still in nappies the facility needs to have a nappy changing area, a handwash basin, access to water, disposable material for cleaning of children, containers for storage of clean and soiled nappies.
- Staff need to have their own toilet and handwashing facilities.
- An area must be set aside as a sickbay.
- The facility needs to have an area set aside for a sick-bay with a fully lockable and fully equipped first-aid unit and a bed/mattress.
- Adequate fire extinguishers must be provided.
- The facility needs to have an adequate number of bins with liners.
- At least one member of staff must be qualified to administer first aid.
- All employees must be subjected to criminal clearance checks.
- Ratio of childcare workers to children must be as follows:
 - 0-2 years: 1 care worker, 1 assistant to 8 children
 - 2-3 years: 1 care worker, 1 assistant to 15 children
 - 3-6: 1 care worker, 1 assistant to 20 children
 - 6+: 1 care worker to 30 children
- Every child's parent or guardian must make written application for their child to attend the facility and provide the child's medical report.
- A general register, attendance register, incident book and communication book must be kept.

Spatial and Environmental Investigations (urban intelligence | urban education)

The purpose of the fieldwork was to assess the existing spatial and environmental working conditions of mothers who bring children to their workplace in Warwick Junction and to

identify existing patterns and norms to inform possible interventions. AeTs work is always underpinned by observation and engagement with what is happening daily on the street. The relationships that the organization has with the informal workers in Warwick Junction have been developed and nurtured over the last 10 years. Cultural sensitivities are taken into account when undertaking any work in the area.

Though the process of establishing a methodology was iterative, the key steps in the process are outlined below:

1. Identifying mothers and study area mapping

Approximately 45 participants – 21 of whom took part in the FGDs discussed above - were identified in the Warwick Junction markets and the CBD. The participants are all informal workers, trading in a variety of goods – pinafores, bovine head meat, cooked food, traditional herbs, fruits and vegetables and crafts. The process of identifying participants took approximately 2 months.

An initial mapping on an aerial photograph of the area was done based on what rough information was known. Each caregiver in the register was assigned a number and their trading site was then named using a system of site_1; site_2; site_3 etc.

2. Conducting interviews and site observation

In situ interviews based on a short questionnaire were conducted by AeT team members with 44 women and one man who brings his children to work. The questionnaire was divided into two sections: a set of social questions, handled by a social worker, and a set of environmental and technical observations, completed by another team member. The information gathered from the questionnaire was recorded using excel spreadsheets, with information from each site recorded on individual data sheets, as well as a composite sheet of all the information (APPENDIX B) . The sheets are designed so that they can be printed and easily filled out in the field.

The questionnaire was administered in teams of three people, including a social facilitator, social worker and an intern. For ease of analysis in the office the questionnaire was written in English, but the questions translated and asked in isiZulu by the social worker. In addition to answering the social questions and noting the technical observations, photographs were taken at each site.

Site photographs were filed according to their site name and selected images were added to individual data sheets.

3. Digital mapping

After visiting the sites and confirming their locations, a digital map was created to keep record of the trading locations of each of the mothers. Later, the locations of toilets and places of residence were also mapped, which would allow us to measure the distances that people travel. The implications of the place of residence was eventually not included in this project.

The map is available as a .kmz (google earth) file which can be sent on request. Please email admin@aet.org.za to request the file which can then be opened on google earth.

Google Earth Pro can be downloaded for free online here: <https://www.google.com/earth/versions/#earth-pro>

Once the software is installed, double click the kmz. file to open.

Each green numbered pin represents a caregiver and is labelled with their number and could later be edited to add further information by right clicking on the pin as displayed in the panel on the left hand side, and then selecting 'Properties.'

4. Environmental Testing

A further component of the environmental and working conditions research was to test the air quality and sound levels, and to assess the WASH facilities in the Warwick Junction markets.

Based on consultation with Dr Rene Street from the Medical Research Council, we planned to use Chromair carbon monoxide monitoring badges as an indicator of environmental pollution levels in the areas where our fieldwork and research cohort are concentrated. Unfortunately, the badges that were immediately available had exceeded their efficacy and new stock is in the process of being sourced. We do know that carbon monoxide pollution is likely to be a factor as the Warwick Junction area has some of the highest traffic movement in Durban, however we were not able to measure the levels as part of this study.

Sound measurements were taken using the NoiseCapture app on an android phone. Sound captured in the field was uploaded to the NoiseCapture community noise map, which can then be viewed online at http://noise-planet.org/map_noisecapture/#16/-29.8577/31.0162

Public toilet facilities were assessed according to a number of criteria, namely; whether or not they had running water, working lights, hand wash basins and toilet paper; whether or not there was an attendant and cost to enter; the general cleanliness and the opening hours (APPENDIX C). This is an essential element for the interventions because the proximity and quality of toilet blocks will determine which areas are appropriate for the establishment of childcare facilities.

WHAT WE LEARNT

The following section will outline the main findings that arose through the various different engagements outlined above. The sample group covers most of the different markets of Warwick Junction, with the exception being the mealie cooking market as there are no mothers looking after children in this facility. There are representatives from all 8 of the other markets.

- **Support:** In general, the role of neighbouring traders is key in terms of assistance with caring for the children. It was often mentioned that **co-workers will watch children for their fellow traders** if they need to fetch stock or watch their stall if they need to take their children somewhere. This differs depending on location; in areas such as

upper Brook Street, outside the Early Morning Market and the Lime & Imphepho (traditional incense) market there appears to be a thriving community of mothers and children. In other locations, such as the main section of the Brook Street Market and certain stretches of street trading areas, mothers identified particular individual/s that helped them (such as an employed site assistant or their direct neighbour) as opposed to a community that helps them. The three foreigners in the sample group all felt they had no support from neighbouring traders in terms of caring for their babies.

- **Competition and hostility** - There appears to be a **lot of competition** between the traders, and a fair amount of **hostility towards the children** in the market. Some co-workers find it frustrating to have children in the market because they touch their stock and get in their way, while others think it is irresponsible for the mothers to bring their children to work because the environment is not child friendly. The younger traders feel that some of the older traders and committee members don't support mothers who have had children out of wedlock.
- **Childcare** - Mothers use a **variety of strategies to care for their children at their trading site**. When children are not yet mobile, interventions range from putting them to sleep on top of a blanket to placing them on a piece of foam or in a storage box. However, as they become more mobile the strategy is based less on physical infrastructure (though some make use of walking rings or plastic bikes) and more on their trust of, and support from surrounding traders. If their children need to be immunized or see a doctor because they are sick, the mothers will take them. In some cases they ask their neighbours to watch their stalls for them, but in other cases they need to give up on their work day, or a portion of their work day – and therefore their income. They mentioned that it would be very helpful if there was a mobile clinic in Warwick Junction. There are a **variety of experiences regarding breastfeeding at work**. These range from mothers saying that their customers are comfortable for them to breastfeed in front of them, to another mother saying that her customers told her they would not buy from her if she was breastfeeding so she must spend 6 months at home with her baby and come back to work when she is no longer breastfeeding. The majority of the sample group **changed nappies** under their table, or adjacent to their table if there is no space. Some mothers make an effort to cover the area when they changed nappies so that customers would not see. The mothers who changed nappies in public toilets were usually located in a trading space where it would not be physically possible to change a nappy. Most of the mothers put the used nappies in plastic bags provided by the municipality and throw them in nearby bins. A few take the waste back home with them.
- **Childcare facilities** - Mothers do not want to bring up their children in the Warwick Junction area – for various reasons discussed below - but they also do not want to leave them at a creche. There are lots of stories about how the **children aren't properly looked after at the creches** and come home injured or coughing or with a nappy rash, and so they feel they can do a better job of looking after their children themselves, but they also know that **their work environment is not conducive to optimal childcare**. There are also other reasons they do not leave their children at creche; the **creche's are expensive, their opening hours do not coincide with the mothers' working hours**, some of them only take children that are over a certain age. Also, some mothers mention wanting to exclusively breastfeed their children and if they send them to creche they will not be able to. This leaves the mothers in a

predicament because they want their children to be properly cared for, but they do not have feasible options which will ensure this. A big theme to come out of the research was that the **mothers would like a childcare facility -a creche - that is near their place of work**, so that their children can be safe and well looked after, and they can go and check up on them during the day to make sure they are ok, and to breastfeed them, if they are breastfed. Ideally for the mothers, the facility would be free.

- **Politics** - There is a lot of **tension between the mothers and the committee**. The committee members are generally part of the older generation and their viewpoints conflict with the younger traders – for example, the mothers feel that the **older committee members do not sympathize** with their issues regarding childcare in the workplace because they are not married. With regard to the municipality the mothers feel that **Business Support Unit** (a municipal department that was set up under the guise of supporting informal workers and small businesses) **does not support them** at all, and that the municipality does not want children in the market.
- **Environmental conditions:** The markets of Warwick Junction are all different and therefore the locations of the mothers trading sites have an impact on what methods they employ to care for their children and the challenges to which they are exposed. However, there are some noteworthy general environmental conditions across the majority of the markets. Dealing with **bad weather** seems to be an issue across the board. Even mothers who have some form of shelter are still concerned about the health impacts that the exposure to wind, rain and dust could have on their child's health. In general, **sound levels are high** throughout markets. **Safety** appears to be one of the biggest issues in the markets. In some of the trading areas **traffic** is a prevalent safety hazard but throughout the Warwick Junction area the participants mentioned that crime is an issue and they worry about their **children being kidnapped**. They also worry about their children getting lost, tables falling onto them or barrow-operators hitting them with their trolleys. The mothers also have concerns about their **children picking up bad habits** from people in the market e.g. swearing, taking drugs, stealing. The toilets are another major issue; many of the participants mentioned that the **toilets are dirty, leaking, they close too early or the sinks do not have water**. It was also mentioned that there are not enough of them and some mothers have to walk a far distance to access them. There are **no public water points** so the mothers need to make alternative arrangements; some get water from the cemetery, some get it from the restaurants in the area and some buy bottled water from the shops.
- **By laws:** It is possible to design a childcare facility that is more informal than what is generally expected of a childcare facility, while still adhering to the by-laws.

THE DESIGN RESPONSE/BRIEF

The proposed intervention entails creating soft physical infrastructure that can be adapted to the local environment or specific worksites and public spaces used by working mothers. This must (1) facilitate proximity between mothers and infants, (2) adapt to the public spaces that

women access for work and (3) foster responsive health systems. This intervention directly relates to mothers, and families, communities and networks, and impacts local governance institutions including informal worker association leadership and the municipality. The intervention must keep infants in a **safer** space during working hours, allow infants to rest and play in greater physical safety, with better hygiene, while ensuring constant supervision of the infants while their mothers work. Lactation and nappy changing spaces would also give working mothers a private space to breastfeed or change their infants during their working day.

This project specifically aims to develop a prototype childcare option for Warwick Junction's informally working mothers, to ensure their children are safer, able to play and learn through appropriate means, and in relatively close proximity to their mother.

The project initially had 3 branches which relate to the different age categories of children who are currently spending time in the Warwick Junction area; baby boxes/ street cribs for 0-6-month olds, micro-childcare facilities for 6-month to 3-year olds, and play-zones for children above 3-years of age.

- *Baby boxes/ street cribs* – The informally working mothers in Warwick already use some form of baby box/street crib extensively for their very young infants - usually cardboard boxes that were previously used to transport fruit or vegetables. There is an opportunity to improve upon the idea, however this was not an intervention that was taken much further than some initial ideas.
- *Pop-up 'safer (micro-childcare) space'* – Home based childcare is already provided for in the eThekweni By-Laws (see above). The primary intervention explored by AeT is the development of childcare spaces to be located on the street and within the markets of Warwick Junction. The spaces would have a maximum of 6 children in attendance at a time, as per the certification requirements for home-based facilities, and would be run by trained caregivers, who may be the mothers themselves, preferably on a shared 'time-bank/peer-to-peer' basis to keep the cash costs affordable. The spaces could also provide semi-private space for breastfeeding and nappy changes. This will be discussed in more detail further on.
A prototype design has been developed and pilot implementation is planned.
- *Play-zones* – Areas where children over 3-years of age can play during the day or after school while they wait for their mothers to finish working are also needed. These areas, unlike the childcare facilities, may not be formally supervised, but will be safer spaces where children can play. This idea has not yet been developed in detail, however a space has been identified for a pilot to test the idea, and the market leadership is in favour.

Design Rationale

Drawing on the research, as well as prior knowledge of the AeT team from many years of working ‘on the street’, the conceptual proposal is for the distribution of street cribs and ‘safer spaces’ (micro-childcare facilities) throughout areas of the city where there are concentrations of informal workers. Mimicking the processes that already operate in these spaces, the facilities are intended as ‘pop-ups’ that are assembled every day and disassembled and stored away over-night. Warwick Junction has storage facilities and there are informal workers known as ‘barrow operators’ who can be paid a daily fee to pack up the structure, take it to the storage and then set it up again the following day. Informal traders currently pay approximately R30 per week for storage of their goods and they pay the ‘barrow operators’ approximately R20 (USD 1.37) per day to transport their goods to and from the storage. Through an iterative process, the design that has emerged also takes contextual cues from the ‘architecture’ deployed by street traders i.e. tents for shelter, crates, and storage



Source: Asiye eTafuleni, 2019

boxes on wheels, all optimised for transportation by trolley and compact overnight storage in a storage facility. It is part of the local municipal policy and public space management, that all structures and goods are cleared away completely at night.

The street cribs are not yet at an advanced stage of design, but our fieldwork revealed that women accommodate their babies (up to about 8 months) in a range of boxes or crates at their trading sites. We propose to design modifications to the ubiquitous wooden storage boxes found on the street, that allow the box to be used as a safer street-crib during the day, doubling as storage for the mothers’ goods overnight (APPENDIX D).

We will work with the women who have their babies with them on the street to refine the proposals.



Source: Asiye eTafuleni, 2019

We have designed two versions of the proposed ‘safer space’ facility in more detail: one for inside a covered market that is secured over-night, and one for a more open situation that needs to be cleared overnight. The size of the second option has been determined by a combination of the municipal guidelines for certified home-based childcare facilities and the dimensions of the specific proposed site, however is potentially applicable for any street location.

During the course of design development by the AeT team, the challenge was set as a student assignment for interior and graphic design students studying at a tertiary education institution in Durban, called VEGA. The students were very responsive and some of their ideas informed the final designs.



Source: Vega, 2019

Note that all proposed facilities must be located within a reasonable distance from a functioning public toilet block, or must be accompanied by a micro-WASH (water and sanitation and hygiene) facility. The detail of the proposed micro-WASH facilities design is yet to be developed. Our proposed implementation pilots will have access to the existing market toilet blocks.

• Iteration 1:

A fenced play area, partially protected from the weather by the (high) market roof, with associated service 'pods' (APPENDIX E and F).

The fencing could be permanent, with the permission of the market management, or temporary event fencing, to be packed away overnight. The two pods: i.e. sick-bay/nappy change/breast-feeding, and food-prep/water/washing were conceived as modified street boxes on wheels, designed to be



Source: Asiye eTafuleni, 2019

lockable and stored. A third

In this iteration, the play/rest space would play multiple roles, over-lapping with the specific functions of the pods.

- **Iteration 2:**

There are instances of shipping containers being used in public spaces as trading kiosks (APPENDIX G).

We explored the option of using a container to accommodate an interior play and rest space and for the functions that require cover and privacy, as well as overnight storage for equipment; associated with a fenced/screened play out-door play area.

This concept was not developed in detail as the requirement for a container would severely limit the applicability of the concept. A container is a large fixed form that is semi-permanently in a space (it is locked and remains in-situ overnight), expensive to modify for habitation and requires more formal permission. The need for adaptability to different conditions would not be resolved by this approach.

This does not preclude the use of containers, in an appropriate setting, but was excluded from our further explorations.

- **Iteration 3:**

This is the most developed concept. 2 versions have been selected for the operational pilot: for a street/open market site and for a covered market site.

Referencing the ubiquitous street solutions, the design proposed for a street/open market site, comprises a large tent, with side-walls, in two halves that can be erected together or separately, and two boxes – modelled on street boxes in terms of size and material – designed to be multi-functional (APPENDIX H and I). The tent can be erected and dismantled daily and stored with the lockable boxes in a storage facility over-night.

The operational model requires that affordability, maintenance, ease of operation (assembly/disassembly, cleaning, security etc.) have been important considerations.

The design provides for the required 9m² covered ‘internal’ area for play/rest for 6 children, plus space in and defined by the boxes for: nappy change station, ‘potty’, sick-bay cot/ private breastfeeding seat, food/bottle preparation, mattress and equipment storage.

In the street/open market situation, an additional secure 12m² is required as an outdoor play area. The proposed site for the pilot of this version allows for the tent to define that space between some existing walls. In a different site, portable event fencing panels would be used.

In the covered market version, a minimum of 18m² of internal play/rest space is required in addition to space for the other functions. The site proposed for piloting this version has sufficient space, already under a roof to accommodate this. The tent structure is not necessary in this situation, however the same boxes as the street version provide facilities as before for: nappy change station, ‘potty’, sick-bay cot/ private breastfeeding seat, food/bottle

preparation, mattress and equipment storage. In this instance, the equipment will be stored in the boxes which will be folded up and locked, however the boxes can be stored in-situ overnight.



Source: Asiye eTafuleni, 2019

The pilot operation will test the designs which we anticipate will require refinement in response to the feedback from the pilot participants and other stakeholders.

The Pilot | Space available and permissible to use within the Warwick Junction markets

The AeT team identified spaces in the market which were either unutilized or under-utilized. Some of the spaces are under municipal authority and some are under national authority/parastatals. Some of the spaces are inside the markets, and therefore under cover, and some are more exposed. In order to make use of these spaces it is necessary to get permission from the municipality and also to get buy in from the community leaders in the spaces.

The two spaces within the Warwick Junction area where the initial pilot micro-scale childcare facilities can be set up are in Brook Street – the street/open market site **(a)** - and the Early Morning Market – the covered market site **(b)**. Community leadership and the senior market manager of the Early Morning Market have expressed support for a pilot implementation.



Source: Asiye eTafuleni, 2019 Adjacent to the covered market site that we have identified, is a space that we intend to use as a secure additional play area. Play equipment will be installed, and the space can be used as an extended area for the children using the childcare facility, as well as for older children who attend pre-school in the morning but need to be near their mother in the afternoon.

Some initial thought has been given to the play-space design, but this is not yet fully developed.



Source: Mmofra Foundation

STAKEHOLDER ENGAGEMENT | INCLUSIVE DESIGN

Show and Tell

In November 2019 a series of ‘show and tell’ sessions of the micro-childcare facility took place at AeTs offices. The tent, as well as the childcare boxes, were set up and the idea was explained in detail to the attendees. The tent takes approximately 30 minutes to erect and the boxes take less than 10 minutes to assemble. The tent was left standing for the 2-week period in which the ‘show and tells’ took place but the mobile unit / boxes were assembled and disassembled for each session, so as to demonstrate their ‘pop-up’ nature. The first two sessions were reserved for Warwick Junction community leaders and the informally working mothers who, along with their children, are intended to be the potential end users of the facility. Questions and suggestions were encouraged. A question which arose in both groups was around the issue of payment for use of the facility and the response – the ‘time bank/peer-to-peer’ proposed model described below – elicited a positive response. In fact, the overall feedback from the traders was largely positive.

The audiences in the following two sessions were made up of relevant government officials (session 3) and members of the Point and Inner-City ECD forum, the principal and teachers from Makabongwe pre-school and other interested stakeholders (session 4). Once again, the response from these sessions was overwhelmingly positive. The attendees also offered a number of useful suggestions, for example; the childcare facility being used as a space where

healthcare professionals can come to offer health checks and inoculations for the children; the creation of resource libraries which can be shared amongst childcare facilities so they do not each need to buy the same materials; and using waste materials to make toys.

The 5th and final show and tell session for 2019 was attended by two municipal officials from the Department of Environmental Health. They mentioned that the safety of the children is their major concern and that they are aware that the current situation of children being brought up on the streets is not ideal. Their initial concerns about the structural validity of the pilot facility quickly waned when they were shown the demonstration and they were very excited by the idea, mentioning that it would also be very helpful to set up facilities such as this one in informal settlements and in hostels. They commented that the by-laws should be revised so as to be more accommodating of informal structures. This unprecedentedly positive response means that we are going into 2020 very hopeful about this project.

Following from the feedback from these 'show and tell' sessions, 2 pilot facilities will be operationalised in Warwick Junction in 2020. Additional funding from a separate source has been secured for this purpose. These will be monitored and evaluated over a period of 6 months following which, if the uptake is successful and funding is available, more of these facilities will be rolled out throughout the markets of Warwick Junction.



Source: Asiye eTafuleni, 2019

Developing the Operational Model

The idea of a 'time bank/peer-to-peer' model for the operation of the childcare facilities in the Warwick Junction markets means that the mothers who are leaving their children at the facility will each be responsible for looking after the children in the facility for a period of time (ideally each mother would be responsible for a one day time equivalent per week of the week, from Monday to Saturday) instead of each of the mothers paying someone else to look after the children. This idea arose because it became clear through the research that the mothers could not afford to pay very much/at all for childcare. The mothers are all informal traders and their income is inconsistent, and in most cases not very high, which means that paying for childcare is difficult, if not impossible. What came out in the research was that the mothers really want a childcare facility but they want it to be free. This 'time bank' model is a way of reducing cash costs by providing childcare which the mothers can pay for with their time, instead of their money. The logistics of this arrangement are in the process of being developed; first hand research is being conducted by AeT staff members to assess the

mothers' willingness to participate, the extent of their availability to contribute their time and the possibility of finding additional volunteers to act as assistants.

Training

There are a number of organizations in Durban which offer caregiver training. The mothers who show particular interest in taking part in the communal operation of the Warwick Junction childcare facilities will be required to undergo this training. Through desktop research, a number of potential courses have been identified which are only a few days long and equip the future caregivers with all the essential skills needed for childminding such as hygiene, feeding and nutrition, learning through play, life skills, child specific first aid and so on.

The narratives in this report are an amalgamation of information taken from the transcripts from the focus group discussions. The anonymity of the mothers has not been compromised because each narrative is a combination of information obtained from more than one mother.

Mother Z is proud of her work as an informal trader but has been aware of a decline in sales over the last few years due to an increase in the number of traders in the market. This worries her. She works to be able to provide for her child and she does not want him to suffer because she is making less money. Along with the issue of a decrease in profits, mother X struggles with the lack of access to water in the market, and the conditions and management of the toilets; there are no taps where she works and the toilets which are near to her trading site close 3 hours before she leaves for the day. 'The ladies that are in charge of the toilet arrive at 08h00 and they close them at 14h00. You have a problem with the child. You do not even take the child to the toilet. Maybe you put a piece of paper on the floor so the child can get relief and then wrap up that paper and put it in the bin.' Despite these struggles, her philosophy is to see each day as a new beginning; whatever unpleasant things happen during her day, she lets go of them when she gets home and comes to work the next day free of resentment. Mother Z took 3 months maternity leave after her baby was born. She did not return to work straight away because she felt that her baby would get sick if she was exposed to the weather when she was still so young. She would have liked her baby to be a bit older and stronger before she returned to work with her but unfortunately her cousin who was supposed to trade from her stall on her behalf, was unable to manage with the work so mother z *'was feeling the pinch of not having money'* and she needed to start selling again.

REPLICABILITY | SCALING

In the case of the micro-childcare facilities it is important to note that scaling up in this case should not mean creating bigger centres, or a centralized system. The innovation lies in the micro-scale and this should be preserved during replication if the project is going to be a robust and sustainable endeavour. In informal working environments such as the markets of Warwick Junction, being agile and adaptable is a necessity.

These interventions can scale by centralizing design processes and can travel with a set of basic principles, to allow decentralized adaptation, manufacture and distribution. This can create local economic opportunities through social enterprises, new revenue streams for NGOs, or be adopted as part of workers' association work. Scaling to new neighbourhoods

and cities can occur through encouraging the use of local materials and skills to keep sourcing of material easy, and costs low. Encouraging local economic activity allows the intervention to remain financially viable. The adaptations should take place at scale of the city level.

CONCLUSION

Preliminary indications are that the proposed intervention, informed by the research, demonstrates proof of concept. The next step will be to operationalize it as a pilot.

The concept is supported by a regulatory framework that allows for a degree of ‘informality’, and the proposal conforms in principle with these regulations. Further engagement with the municipal authorities will inform the best route towards achieving some form of official ‘sanction’, but initial feedback from selected officials suggests that there is merit in the ‘soft infrastructure’ approach. We experienced a surprising willingness to remain open minded in order to advance the ideas.

All stakeholder groups invited to view the prototype communicated a strong degree of pragmatic acceptability for both the form and our early ideas around an affordable operating model.

We believe that this positive feedback is attributable to a funding regime that has allowed flexibility to explore options, the fact that the proposed solution is rooted in research, and it affirms AeTs approach, methodology and unique experience.

We believe that the impact and prospects for cross-learning across all the uLiNCs partners is great and look forward to further knowledge sharing.