



K2K INDAH ANALYSIS REPORT

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TABLE OF CONTENTS

Introduction	2
Data Collection	4
Research topics–K2K Indah	6
Results	
The People	8
Smartphone Ownership	9
Education	10
Health	11
Income & Financial Aid	11
Nutrition and Nutrition Literacy	15
Parent’s Satisfaction of Children’s Wellbeing	16
The Place	
Individual Units	17
Safety and Perception of Safety	17
Sanitation and Waste Management	18
Public Space Assessment	19
Governance	
Management	23
Conclusion	25



INTRODUCTION

K2K INDAH* is a child nutrition programme organised at three public housing complexes in Selangor State: PPR Kampung Baru Hicom, PPR Kota Damansara and five blocks at Desa Mentari low-cost housing. The selected housing estates and blocks comprise a total of 5008 households, of which 886 households applied for the K2K INDAH programme. Of these, 857 are eligible for the programme.

The programme seeks to gain an in-depth understanding of the economic, social and physical dimension of public housing communities and particularly on the issue of childhood nutrition. These insights are timely, adding to the discussion on the decline of standard of living, community resilience and the vulnerabilities exposed by the Covid-19 pandemic.

*Note: K2K INDAH is acronym for Inisiatif Nutrisi dan Diet untuk Anak-Anak Harapan Selangor, which is Malay for Dietary and Nutritional Initiative for Children of Selangor State. Indah also means beautiful in the Malay language.



DATA COLLECTION

To gain community insights, several data sources are used:

1. **K2K app data:** Data generated from self-report questions via the K2K app and its registration process (based on 857 eligible households as of 15th March 2021).
2. **K2K qualitative data:** Qualitative data collected as part of the K2K programme on site. This includes interviews and focus groups.
3. **K2K mapping:** Geo-spatial mapping of the public housing and surrounding areas
4. **Community insights:** Anecdotal evidence collected via observations or via meetings and discussions at times supported by visual images.
5. **External data:** Additional data obtained from other sources.



RESEARCH TOPICS—K2K INDAH

Figure 1

K2K Indah Research Topics

The People

- Demographics
- Smartphone Ownership
- Education
- Health
- Crime
- Income
- Food Expenditure
- Nutrition / Nutrition Literacy
- Food Security

The Place

- Sanitation and waste management
- Recreation opportunities in and around Public Housing
- Public space assessment & universal access and child friendliness

Governance

- CBO structures and management
- Other Community Leadership
- Residents awareness of government aid / benefits
- Awareness of government programme and benefits received and if not why

COVID-19

- Impact
- Stress Levels
- Coping Strategies



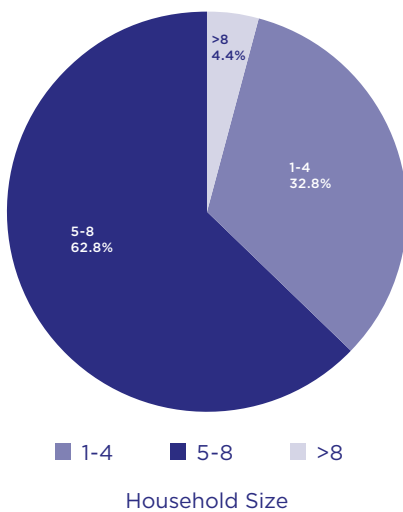
RESULTS

The 857 households were analysed at the three public housing sites (study area) and are described below, with minimal differences between sites. As no statistically significant differences were found between the study sites, data is reported as pooled data for all sites.

The People Household Demographics

The average household size in 857 households in three sites is 5.3 people, higher than the Selangor average of 3.5 (DOSM). 4.4% of households report having more than 8 people living together in a unit. This may be of concern given income levels and residential unit size / condition. Cramped, inadequate living conditions have implications for disease transmission, stress levels, and overall health, particularly in times of COVID-19 when most people are confined to their homes for extended periods of time.

Figure 2
Household size

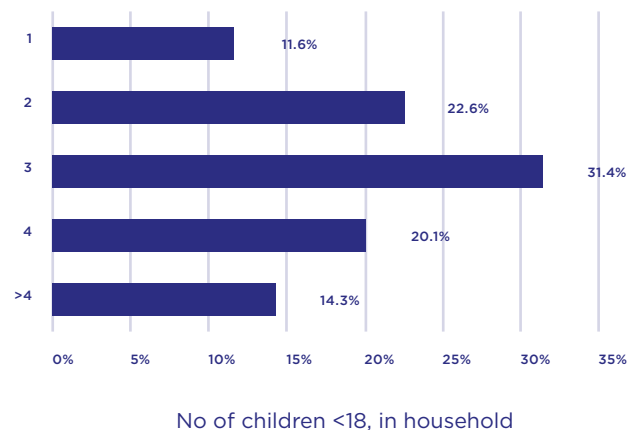


Based on the responses of representatives of households, 82.7% of households are Malays, 12.8% are Indians, 1.4% Chinese and the rest are other Bumiputera, other Malaysians, or non-Malaysian.

82.1% of claimants are mothers. Mothers were encouraged to apply during the promotion of the initiative as Malaysian children's identity cards are linked to the mother's name.

The average number of children below 18 years old were reported to be 2.4 per household.

Figure 3
Number of children under 18 years per household



Parenthood within Public Housing

9.7% of households registered are single parent households, with 9.1% comprising single mother households. Of these single mother households, 3.6% are unemployed.

Special attention and support should be given to single parent households, particularly to those without a source of income. Given that the majority of these households are single mothers, existing government welfare programmes catering to this group (such as Kasih Ibu Smart Selangor) should be effectively linked to them (if not already).

Table 1
Family types in public housing

Parenthood in Public Housing	%
Two-parent family	88.6
Employed single mother	5.5
Unemployed single mother	3.6
Guardian	1.8
Employed single father	0.5
Unemployed single father	0.1

Smartphone ownership

The K2K programme registration is based on a digital platform, making it critical to ascertain how many households have access to a smartphone. Of the 857 households registered, 98.8% of households have at least 1 smartphone, while 56.5% have at least 2, making digital interventions possible. While this appears encouraging, anecdotal feedback from residents and our own experience on the ground indicates that access to free, reliable, and fast internet across blocks and floors is as equally important. Another key feedback, reflected in the following section, is that residents (especially school-going children) lack tools for conducive online learning, and for working remotely from home. Smartphone ownership alone is not indicative of a lack of digital divide.

Table 2
Number of smart phones per household

Number of smart phones per household	%
0	1.2
1	9.6
2	56.5
3	18.7
>3	14.1

Education

Education of children and youth within public housing is badly affected due to constraints in terms of number of digital devices per household, poor wi-fi connectivity, and an environment that is not conducive for learning.

A lack of guided learning and one-on-one attention is also a factor, with many children, especially within the younger age groups expected to fall behind significantly. Community feedback at PPR Hicom notes that many children about to enter primary school are unable to read or count well (will require further assessment).

In households with several children, device use priority is given to older children to complete homework and classes.

Covid-19 related restrictions have also affected tuition classes run by various organisations. At PPR Hicom, for example, classes are closed or operate at much smaller capacities focusing only on students with major examinations. Online lessons are constrained by the limited access to devices, with only 2-3 additional computers available at the community youth centre run by Adab Youth Garage.



Figure 4
AYG community room at PPR Hicom
Source: AYG

Health

Chronic illness

Identifying patterns and trends of occurrence of any persisting illnesses can provide us valuable insights on public health. Interventions and preventive measures can be formulated in response to identified public health risks.

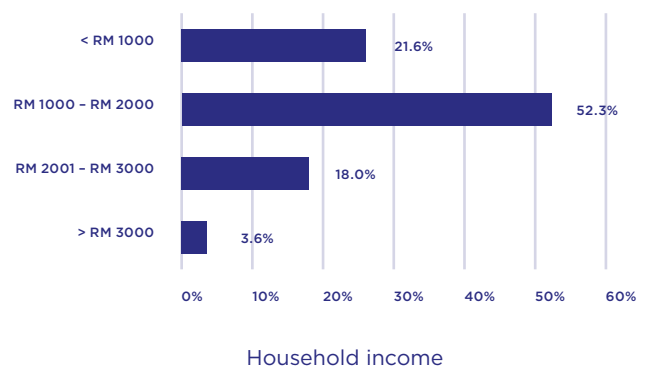
Current analysis revealed that 3.9% of children have chronic illness. Details regarding the chronic illness is not available as the measure of frequency serves as a preliminary analysis. Chronic illness can be exacerbated by other factors such as quality of living conditions, nutrition, access to health services, accessibility to public transport and so on.

Future analysis can consider involving questions regarding chronic illnesses and adults to know the health condition of the adult population in public housing.

Income & Financial Aid

Household Income

Figure 5
Household income



Income levels are a critical measure of urban poor wellbeing, providing greater understanding of challenges faced. Income limitations have cascading effects on a multitude of behaviours and choices within urban poor communities, such as the purchase of cheaper and less nutritious food over extended periods of time (leading to health issues), high rates of non-payment for management/ rent (risking eviction), low-education levels (income now preferred over long-term investment in education), and so on.

Within the communities studied, analysis shows that over 78.4% of households report earning less than RM2,000. In 2020, Malaysia revised its poverty line to RM2,280. This means that at least 78.4% of the households studied are living below the poverty line.

In addition, due to Covid-19, 85.6% of households have experienced some form of income loss (either due to reduction in income or job loss). In the same survey, 59.0% of respondents said they did not have a job and 21.8% said their spouse did not have a job. Approximately 5.3% of households report both parents with no employment. Meanwhile 4.2% of households have single parents with no employment.

In one PPR studied, some residents have looked at new ways of generating income and reducing financial stress, by opening small F&B businesses catering to other residents.

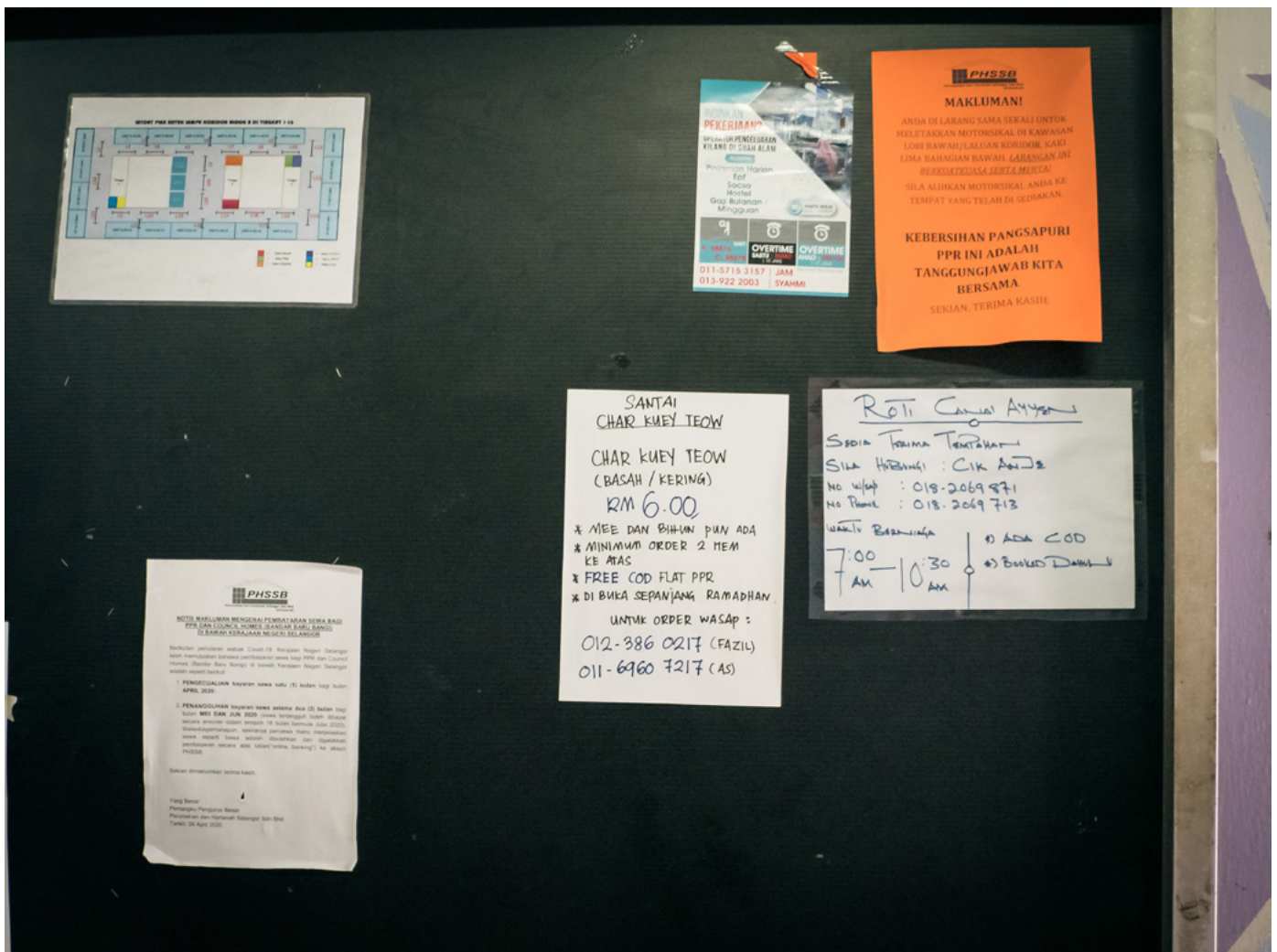
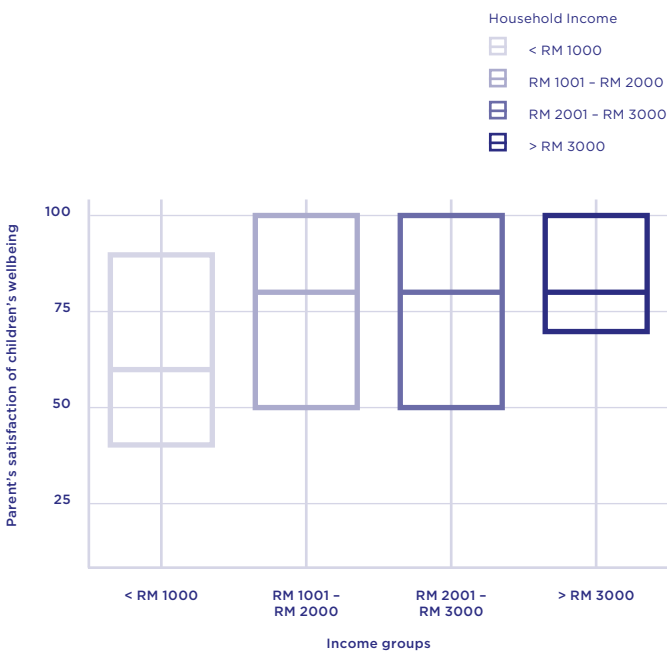


Figure 6
Residents using a bulletin board to advertise their food business
Source: Think City

Income levels and satisfaction with children's well-being

Additionally, inferential analysis was used to identify if income level was a factor that affects parent's satisfaction of children's wellbeing. A statistically significant difference among different income group was found but the size of the difference was small (this is likely due to a large sample size).

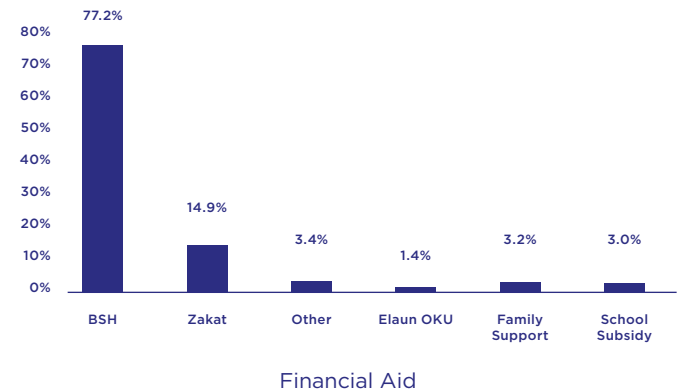
Figure 7
Parent's satisfaction of child wellbeing based on 1-10 scoring by income group



Summary: People with income > RM 1001 are shown to be slightly more satisfied with their children's wellbeing than people earning < RM 1000 across all Public Housing. Statistically, there is a difference found when comparing certain income groups.

Financial Aid

Figure 8
Parent's satisfaction of child wellbeing based on 1-10 scoring by income group



Another dimension in understanding the financial stress faced by urban poor communities is to look at access to sources of financial aid such as Bantuan Sara Hidup (BSH, alternatively known as BR1M), zakat, OKU allowance, and other aid.

77.2% of households surveyed report receiving BSH aid, while 14.9% report receiving zakat. (Multiple answers were possible.)

In one focus group discussion, residents mentioned being more reliant on NGOs and other parties for aid, citing the ease of access and lower barriers of entry to these types of support. Some residents were also not aware of the government aid available to them, nor the application process.

Some residents reported applying for educational aid for their children. However, the aid comes in the form of a SIM card for online learning. Residents reported that they do not have an additional device to use the SIM card for learning, rendering the aid ineffective.

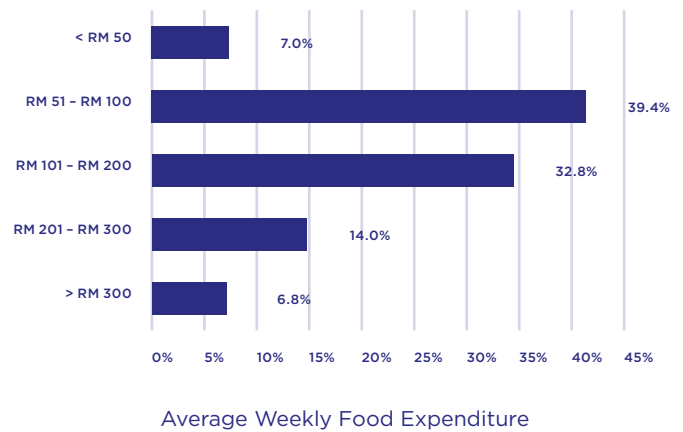
Many households surveyed benefit from welfare programmes, but aid, particularly in the form of monetary injections only serves as a temporary stop-gap measure to alleviate financial stressors. Longer-term support to sustainably improve livelihood and financial management is needed. This should also be coupled with streamlined comprehensive information dissemination on support available to the community, to increase take-up rates.

Food expenditure and food security

The previous section touched briefly on the cascading effects of income, including on food security and expenditure, and indirectly on health. This last link is explored further in the next section on nutrition.

In the K2K survey, at least 65.0% of households reported buying less or cheaper food during the first Covid-19 Movement Control Order in Malaysia, likely related to income disruptions or job losses.

Figure 9
Average weekly food expenditure (during COVID-19 lock down)



The figure indicates the weekly spending on food by households, with 46.4% of households spending less than RM100 per week on food. Of the household spending less than RM100 a week, 87.8% report an income below RM2000, and by extension, below the poverty line. Using an average household size of 5, that is approximately RM20 spent on food, per week, per person.

About 17.2% of all households reported not having enough food for children for 2 or more days in the period surveyed.

At the start of the Covid-19 pandemic, as a means of preserving food security, a food bank was set up in PPR HICOM by a resident-based association, PERWACOM. This food bank was set up with funding from external sources to provide for families who are unable to procure food during the Covid-19 pandemic.

Figure 10
Number of meals eaten by children per day

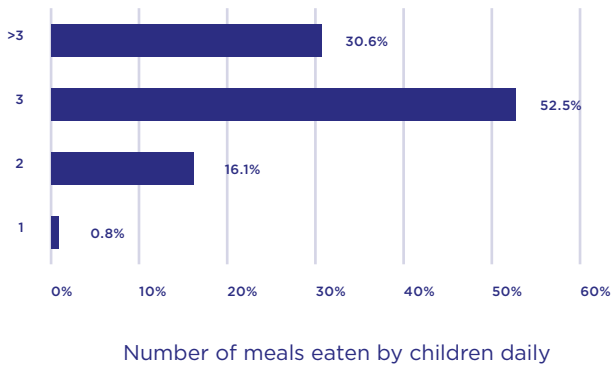
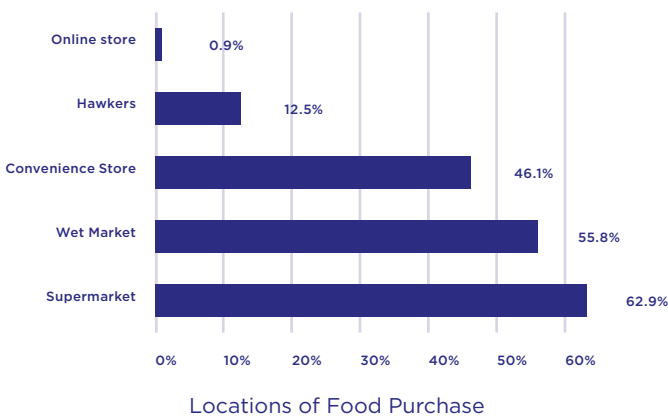


Figure 11
Locations of food purchase



** Percentage may not total to 100, multiple answers were possible*

As Figure 11 demonstrates, there is great potential for households to increase online food purchases. Currently, supermarkets, wet markets and convenience stores are the most common locations for food purchases.

Nutrition and Nutrition literacy

Quality of Food

As seen in Figure 11, at least 46.1% of households purchased food from convenience stores, most likely due to ease of access. However, food available there is generally more expensive and more processed.

In conversations, some residents indicated that they usually have enough food to avoid being hungry. However, on closer inspection, it becomes clear that these meals are not balanced, consisting mostly of processed carbohydrates, and lacking vegetables and quality protein. It is hard to determine if this stems from income constraints or a lack of understanding of nutrition. Further studies on the nutritional habits of residents are needed.

78.9% of households surveyed have little to no knowledge on nutrition, however 98.9% are interested in learning more.

Children's Nutrition

The income and access-imposed constraints described above complement findings from the UNICEF 'Children Without' report (2018) which highlights the health and nutritional needs of B40 children. For example, the study notes that almost all children (99.7 per cent) in low-cost flats live in relative poverty and about 15 per cent of children below the age of five are underweight, almost

two times higher compared to the KL average (8 per cent). Despite various interventions, many urban poor children are either stunted, wasting, overweight/obese, or suffering from micronutrient deficiency or a combination thereof. Thus, the nutritional needs of children on site are likely unmet.

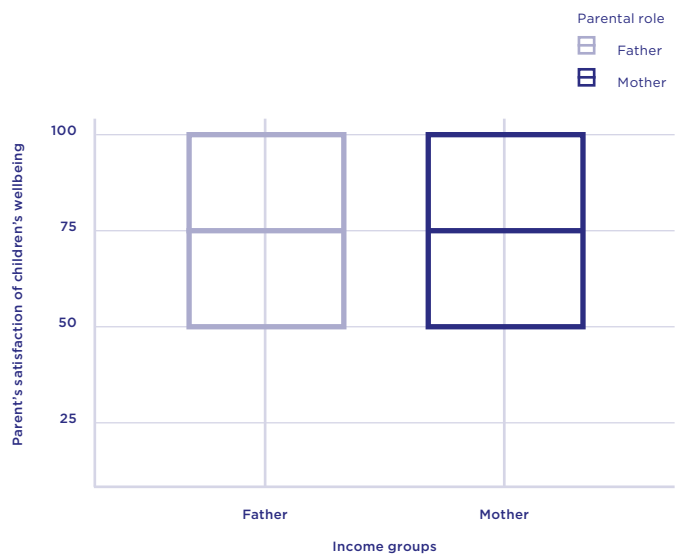
As 98.9% of respondents are interested in learning more about good nutrition, there is an opportunity to provide nutritional knowledge to the public housing community through various interventions.

Parent’s Satisfaction of Children’s Wellbeing

Parent’s satisfaction of children’s wellbeing is one of the metrics within the K2K app data. This metric sought out understand parental awareness of children wellbeing in the form of a rating scales. The data can be used to identify potential trends within the community as shown in Figure 7 which was trying to identify if income is a factor that affects parent’s satisfaction of children’s wellbeing.

We also compared parental role to see if there is a difference in score between fathers and mothers on their satisfaction of children’s wellbeing. No difference was found during the analysis.

Figure 12
Parent’s (mother or father) satisfaction of children’s wellbeing (in percent)



Parent’s (mother or father) satisfaction of children’s wellbeing (in percent)

The Place

Individual Units

The conditions of the units vary across locations. Here we highlight some key challenges brought up by residents during interviews:

Flooding within units at PPR HICOM occur due to water being blown in during heavy rain. This occurs even in the highest floors and is a result of a design flaw involving the windows. Residents have currently covered the windows with plastic sheets but have not been allowed to modify the windows or install awnings to address the problem. Living rooms and other rooms facing the river suffer the most from this problem.

Issues with maintenance — Residents have said that some units need serious attention, due to issues in structural integrity. Several empty units are also mentioned, though further mapping is needed to identify them.

Safety and Perception of Safety

To better understand the lived experience of public housing residents, it is important to understand their experience with safety and perception of safety within their housing complex. Actual and perceived threats to safety come from various sources, including:

Litter

Reports of residents littering from upper floors is commonplace in public housing, including at our three sites. Actions like these have resulted in serious injury and even death in public housing. In one KL PPR, a child was killed by a chair thrown from the upper floors (Malay Mail, n.d.). Despite the occasional littering of food remains and other household waste from floors above, fortunately, no heavy objects were reported to be thrown in the three public housing complexes studied.

Infrastructure

Deteriorating or poorly maintained infrastructure is also a threat to safety. In PPR Kota Damansara, for example, two separate incidents of children falling to their deaths due to poor railings occurred. The railings have since been changed and improved.

Other challenges related to infrastructure and safety remain, as detailed in later sections of this report; this includes inadequate walking paths, lack of universal access, flooding, and other physical conditions which have the potential to be hazardous.

Vandalism and Graffiti

Site analysis reports the presence of graffiti in one of the public housing complexes. While some are innocuous (e.g. children solving math problems on the walls), some are more concerning, in the form of gang signs. This has implications for the image of the area, as well as systemic social challenges. Regular upkeep and repainting of the walls may be an ineffective and costly measure if done without complementary efforts to build community ownership for the long-term upkeep of these spaces.



Figure 13

Graffiti of a 'Gang 24' sign in a PPR

Source: Think City

Gang Activity

Qualitative analysis through observations and interviews at one public housing complex indicate the presence of at least three gangs over the past few years. Residents at the site report that gang activities and presence has significantly dropped, attributed to relocation of active gang members, or their passing.

Burglary & Break-ins

Residents participating in a focus group at one site brought up cases of burglary, occurring often during festivities when people are away or occupied.

Other reasons cited for actual or perceived lack of safety:

- Belligerent behaviour resulting from alcohol consumption, occasionally occurring.
- Some residents fear that some who have lost jobs or sources of income due to the pandemic might resort to petty theft or other crime in desperation. This fear was cited as one of the barriers to residents carrying out physical exercise in one housing complex.

Sanitation and waste management

Paraphrased from a comment made by one of the children in at one site: “it would be nice if the surrounding was cleaner”.

Hygiene and sanitation at the three sites are less than desirable, with rubbish a common sight. Some residents also throw rubbish from their floors, out of windows, balconies, and corridors into the common spaces. Many stray cats and dogs, as well as pests such as rats add to the problem.

While rubbish is collected every day at some sites, it may not be enough. There is also no rubbish chute, for easy rubbish disposal. Residents must walk down from the floors to the waste dumping area. Some residents pay others to do this for them.

Garbage that is found clustered on the ground encourages rats to scavenge through the area. The garbage disposal site is located near playgrounds and this may increase the risk of children contracting a range of parasitic infections as rats are known to carry zoonotic infections.

Additionally, poor hygiene and sanitation leading to clogged drains and stagnant water would put the area at high risk for dengue and other diseases. The 16th floor of one housing complex is known amongst residents as a hotspot for dengue cases due to the presence of stagnant water on the roof. One resident also mentioned that fogging is only done on the lower floors when cases of dengue rise, though the breeding grounds are much higher up.



Figure 14
Rubbish dumping in stairwell — a health, safety and liveability issue
Source: Think City

Public Space Assessment

Information on public space is gathered from focus groups, interviews, and workshops. An in-depth site analysis was also carried out at one location. The public space at the sites have several issues, compounded by poor design, maintenance and management, and the lack of civic behaviour exhibited by residents.

Areas for play and recreation

While the sites provide playgrounds or areas of play for children, the space itself is inadequate and in some cases has broken facilities (such as broken swings). These playgrounds are also located near waste disposal areas, car parks, and have stray dogs all of which pose a threat to children. As a result, children have taken their recreational activities, such as football, indoors. This in turn has resulted in holes in the dry walls, from footballs being kicked repeatedly against them.

It is also important to note that areas for recreation for adults and general community use is also lacking. There is a need to convert more space into recreation or social space for residents, with emphasis placed on universal access and quality of space.

Underutilised spaces can be identified and improved with upgrades and better programming. Much of the green patches at the specific site studied is currently occupied by motorcycle parking lots and stall seating. The space can be put to better use if turned into

vegetable gardens or play space for children. The riverbank by the site can also be used for the same purpose.

The community halls as well as multi-purpose courts in each block of this site also required physical upgrades with better amenities for the residents.

There was also a suggestion to create a boardwalk by the river for residents to have their morning or evening walks. However, such a project involves significant cost, and requires permission from Jabatan Pengairan dan Saliran (JPS) for any structure built by the riverbank. For this idea to come into fruition, further considerations need to involve budgeting and JPS.

Parking spaces are limited, with many cases of double parking which often lead to obstruction. Residents know to leave their hand brakes released so cars can be moved easily. In some cases, illegal car workshops have also claimed several parking spots, despite repeated attempts to reclaim the space. Flooding has also been known to affect both areas for play and parking spaces.



Figure 15

Car parking at Public Housing — it often blocks access and reduces social public spaces

Source: Think City

Other common spaces to note are stairwells, which can be dark, dirty and dangerous due to the lack of lighting and poor maintenance. Through an interview, a resident mentioned that they tried to use the stairwells for their daily exercise. However due to the condition of the stairwell, that idea was quickly abandoned. Some stairwells are in dire need of maintenance due to chipped edges, which currently pose a safety hazard.



Figure 16
Hazardous stairwells at a PPR

In one Public Housing scheme, residents mentioned some corridors are filled with residents' belongings which makes the path narrow, limiting any movement across the corridors.

Universal access has to be prioritized, to provide better access for individuals with mobility impairment on site. At one site, the front entrance is the only entrance with a ramp. The back entrance lacks ramps for those with mobility impairments. Lifts are also ill-equipped. Bumps installed to prevent flooding now serve as a hindrance to wheelchair access.

Governance Management

Understanding management structure is necessary to understand the living standards of residents. For this, qualitative data was collected in the form of focus groups and interviews.

In general, management seems to be responsive and quick in fixing issues like malfunctioning lights and lifts. In PPR Hicom for example, residents report that management is strict and on schedule with rental collection and waste management, fining or evicting those who do not comply with the rules.

Residents, however, do wish for a degree of flexibility. For example, at one PPR, the application to turn an empty unit into a library for the community was rejected. Similarly, management does not allow modifications to the building structure, such as the awnings on windows to prevent flooding due to a design flaw. At another PPR, structural issues within the unit (such as leaks or cracks) often receive slow response.

Residents in a PPR also requested more clarity and openness in billing processes, such as to get breakdowns for electricity or water billing. Some residents are more reserved about the topic and are cautious to comment on management at the risk of being penalised as a collective.



CONCLUSION

The report summarises challenges residents at public housing complexes face daily, which have been further exacerbated by the Covid-19 pandemic. Further quantitative and qualitative analysis should be carried out to provide a more detailed picture of the areas highlighted.

A summary of the key priorities:

- Economic: Income generation and financial management
- Social: Education and the digital divide
- Social: Nutritional needs (particularly for children)
- Physical: Public space management

Current interventions need to provide relief for immediate burdens. However, future interventions should focus on addressing systemic challenges with a long-term view by simultaneously improving economic, social and physical issues to halt the decline and increase standard of living and quality of life.

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