ANALYSING POVERTY IN SINGAPORE

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KEY SUMMARY

- Absolute Poverty : Around 3% of Singaporeans are unable to meet a minimum standard of living requirement set by a research conducted by Dr Ng Kok Hoe and hence, suffering from absolute poverty.
- Relative Poverty : Around 25% of Singaporeans are suffering from relative poverty. whilst basic needs are met, they are deprived of opportunities/services enjoyed by an average Singaporean.
- Situational Poverty : Relatively well maintained in Singapore with improvements over the few years as indicated by low levels of long-term unemployment rate and under-employment rate, strong employability and high job stability. However, Singapore suffers higher vulnerability during economic downturns compared to other developed nations.
- Intergenerational Poverty : Improving due to increasing absolute mobility from a decrease in intergenerational Correlation Coefficient; and increasing relative mobility, from an increase in percentage of households with income ranks of children whose fathers are in the lowest income quintile, compared to the past.

Poverty is commonly misconceptualised as a lack of financial well-being. However, in reality, the experience of poverty is multifaceted, multidimensional and subject to volatility; it also has time and relativity dimensions. This includes physical (i.e. lack of rights to adequate housing, education and good health) and social (i.e. social exclusion) dimensions.

Lack of Rights to Adequate Housing

• This refers to individuals who do not have a safe and permanent roof above their head. This is not only applicable to homeless individuals, but to others with permament housing as well. The defining features are as such: security, availability, affordability, habitability, accessibility, location and cultural adequacy.

Lack of Rights to Good Health

- More and more people are getting worse off physcially and mentally over the years due to food insecurity and increasingly unaccessible mental healthcare.
 - Food insecurity is the limited access of nutritious food for a stretch of time, rather than just the presence of hunger.
 - Mental healthcare has been increasingly unaccessible due to its insufficient awareness of the scale regarding this issue by public perception.

Lack of Rights to Adequate Education

- Lack of rights to education refers to the situation where individuals or communities are unable to obtain or participate in quality educational opportunities.
- I believe that primary education contributes most to the lack of rights to adequate education in Singapore. This is due to Singapore's education system that indirectly promotes hereditary meritocracy. This is due to the Inequity of wealth and status as the main drivers contributing to this, where the poor suffers and the rich gains.

Social Exclusion

• According to the European Foundation, social exclusion refers to the process through which individuals or groups are wholly or partially excluded from full participation in the society within which they live.

Reccomendation: Adoption of a new poverty measurement model

- Currently, countless forms of Proxy Mean Test (PMT) measurement are present in Singapore (e.g. Key household income trends, HES and AHEBN), where people in Singapore are measured based of their monetary well-being as a way to identify people living in poverty.
- However, after understanding the multidimensional aspects of poverty, we have come to a conclusion that **measuring poverty solely based on monetary well-being is too shallow** and should measure other aspects such as the physical and social dimensions of poverty. These components are where Singapore lacks deeply in.
- With consideration and understanding of multidimensional poverty measurement models of other countries, I have came up with a proposed framework that can not only be applied in Singapore but other country as well. The proposed framework consist of income, deprivation and social exclusion index with its data measuremnts being relatively easily extracted from other global data present.
- The implementation of this model can:
 - a. Allow each country to better identify the type of poverty that is most prominent and tailor their policy accordingly for their people;
 - b. Provide appropriate infrastructurial development into areas most needed (i.e. healthcare: hospitals, education: school etc.);
 - c. Allow further national studies to be conducted on concerning areas of poverty identified via our model, to better determine the root cause of their existence.

POVERTY

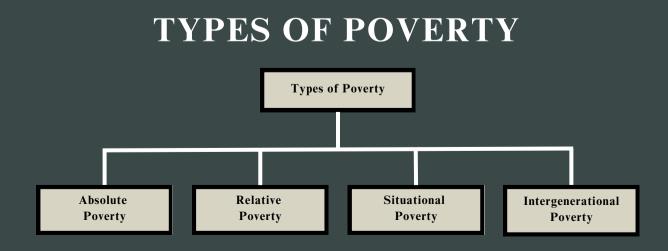
According to the United Nations:

"Fundamentally, poverty is a denial of choices and opportunities, a violation of human dignity. It means lack of basic capacity to participate effectively in society. It means not having enough to feed and cloth[e] a family, not having a school or clinic to go to, not having the land on which to grow one's food or a job to earn one's living, not having access to credit. It means insecurity, powerlessness and exclusion of individuals, households and communities. It means susceptibility to violence, and it often implies living on marginal or fragile environments, without access to clean water or sanitation" (United Nations, 1998)

The theory that poverty is solely due to poor financial wellbeing of the individual is a myth that has been debunked but not clearly spread to the masses. Poverty is multidimensional with a social and physical element to it. Furthermore, poverty can manifest in different forms and degrees, ranging from extreme deprivation to relative deprivation compared to the prevailing standards of living within a society. In this report, I would like to provide greater insights to the poverty situation in Singapore in hopes of spreading greater awareness on this group of people.

Importance of eradicating poverty

Poverty compromises the standard of living of those suffering from it, resulting in many undesirable consequences like social stigma (i.e. inequality of treatment, inducing increased inequity as the rich becomes richer and the poor becomes poorer) and physical deterioration (i.e. lack of access to food, healthcare and adequate shelter). These consequences further weighs on them as they continue to lack access to opportunities in moving up the social and economic ladder to contribute effectively to our society. This inequity therefore causes them to be trapped in a vicious cycle of poverty. From a monetary standpoint, since no person chooses to be without money; and from a social standpoint, everyone should gain equal assess to opportunities, it is in everyone's best interest to aid those suffering in poverty through their difficult times. Thereafter, we can then live in a society where everyone has a chance to pursue their interest without concerns.



ABSOLUTE POVERTY

Prevalent to a small population of people

Absolute poverty occurs when household income is set below a pre-determined level that makes it impossible for them to meet their basic needs (Irene Y.H. Ng, 2018). In Singapore, the Minimum Income Standards (MIS) budget suggested by Dr Ng Kok Hoe is as shown below:

How is the MIS calculated? (Ng et al., 2023)

- Focus group discussions involving people from different socio-economic backgrounds is conducted to determine what constitutes as a basic standard of living in Singapore. Thereafter, they are each given a monetary price for the minimum quantity of each of these basic needs.
- MIS takes into consideration of aspects such as food, housing, healthcare, education, transportation, and social participation.

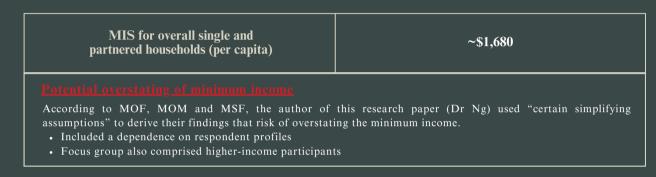


Fig 1 Source: CNA, 2023

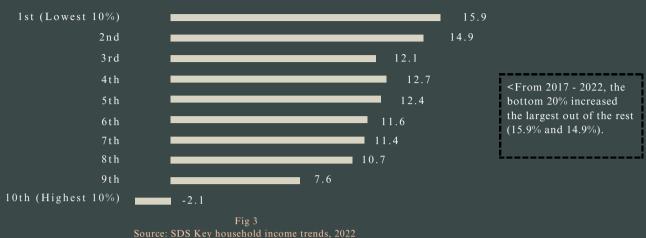
Average monthly household income (excluding CPF contributions) in 2022 [\$]



Source: SDS Key Household Income Trends, 2022

With the lowest 10 percentile of household income averaging at \$2104; and assuming median and average of monthly household income are roughly around the same, this can conclude that around $\sim 3\%$ of people in Singapore are living below the minimum income standard of \$1,680 and hence experiencing absolute poverty. Do take into consideration that this 3% may be overstated. However, this is the best possible estimate we can derive of with the limited data present.

<u>Improvements seen</u>



Cumulative Change of Average Household Income from Work Per Household Member from 2017 – 2022 After Adjusting for Inflation [%]

This indicates that the situation of absolute poverty in Singapore is improving as more and more people are escaping it over the years.

RELATIVE POVERTY

Important aspect in developed countries

Especially prevelent to developed countries like Singapore, whereby only a very small population experiences absolute deprivation of financial wellbeing, there has been a fundamental shift in focus from absolute to relative poverty, due to the understanding that the perception and experience of poverty have a social dimension (UN, 2010). While absolute poverty may ultimately disappear as countries get richer, the subjective perception of poverty and relative deprivation will not as people will be identified as poor because they are now disadvantaged compared to others.

Prevalent to a larger population of people

Relative Poverty occurs when a household's income is below a certain percentage of the median income. with threshold ranging between 50 - 60% (Tejvanv Pettinger, 2019). This means that while their basic needs can be met, they are unable to experience the life of an ordinary person. In 2022, the median household income per household member, after adjusting for inflation, is \$3287 as shown in fig 5. By taking the threshold as 50%, a family with a household income per household member of \$1643.50 and below is considered to be living in relative poverty.

With reference to fig 4, this accounts for an estimate of 20% of people living in Singapore (\$1643.50 falls in between 15% - 25% i.e. 2nd and 3rd decile). Hence, this shows that relative poverty is much more prevalent than absolute poverty in Singapore as almost all is able to meet their basic needs but may not be able to take part in activities/opportunities that an average person can enjoy.

Stagnant results

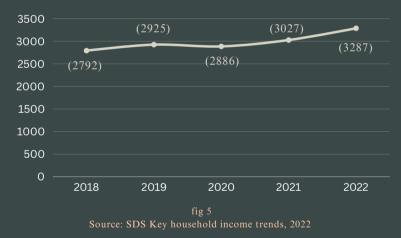
Average Household income from work per household member among resident employed households [\$]

Decile				4th	5th	6th	7th	8th	9th	10th
2022	689	1347	1864	2400	2976	3634	4447	5578	7493	14354
2021	596	1224	1712	2211	2749	3347	4111	5144	6944	13626
2020	560	1141	1609	2085	2603	3201	3940	4972	6712	13400
2019	597	1179	1647	2131	2647	3250	4036	5080	6843	13737
2018	570	1124	1583	2033	2522	3082	3804	4833	6559	13581

Fig 4

Source: SDS Key household income trends, 2019 - 2022

Median household income from work after adjusting for inflation [\$]



By applying the same shown previously, with a threshold of 50%, it can be determined that there is only minute changes in percentage of households members living in relative poverty from 2018 - 2022 as in all 5 years, the percentage has always been hovering in between the 2nd and 3rd decile (as shown highlighted in red in fig 4. (note how the statistics used here excludes certain people leading to an underestimation of results)

Potential overstating of minimum income

This data only takes into account of resident households with at least one employed person and individuals who has access to accomodation. This leaves out unemployed households, who may or may not have any source of external income; and homeless individuals who are often low in income.

SITUATIONAL POVERTY

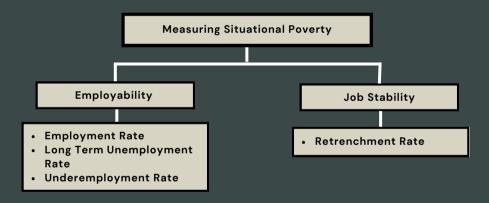
Situational poverty refers to a type of poverty that is temporaray in nature and arises due to specific life events or personal circumstances (rather than long term systematic issues) that substantially lowers their source of income and resources to a point where they are unable to attain certian forms of basic needs.

Specific life events include the COVID-19 pandemic, which resulted in a wide spread lost of jobs by many individuals around the world. Personal circumstances includes personal job loss, illness, divorce, death of a family member, natural disasters, or other unexpected crises. All of these events causes a sudden disruption to their own/family's financial stability and hence, sudden inability to afford basic needs like healthcare, housing and food.

Effect of poor management of situational poverty

If situational poverty persist for an extended period of time, it could potentially become generational, causing poverty to be passed down to their children as well. This makes it ever more difficult to resolve and an issue most advocates would like to avoid.

Measuring situational poverty from an economical perspective



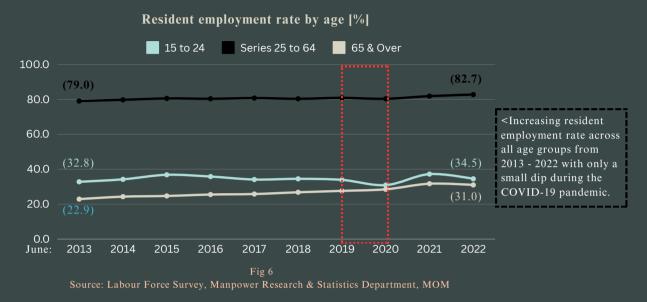
Both employability and job stability measures how resistant individuals in Singapore are to situational poverty over the years and during financial downturns.

Hence, in each of these indicators, I will be comparing the changes over the past 10 years (i.e. 2013 - 2022) and the degree of fluctuations caused by the COVID-19 pandemic (highlighted in a red dotted box) to determine the severity of situational poverty in Singapore.

<u>Employability</u>

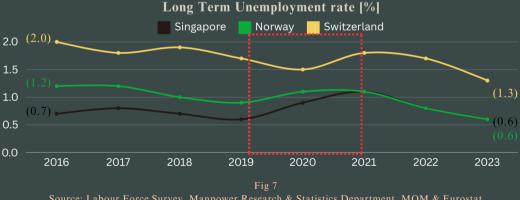
A strong employability indicates that in the event of a global financial downturn, individuals can still gain meaningful employment (albeit lesser) and continue to earn a stable form of income.

• Employment Rate



• Long Term Unemployment Rate

Long term unemployment refers to people who have been unemployed for 12 months or more. This indicator provide insights to the number of individuals who are actively seeking but unable to attain jobs for extended periods of time, thereby losing out in income during this period.

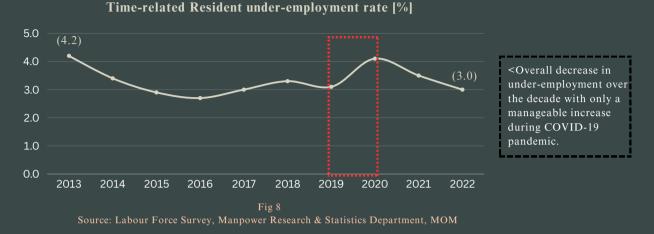


Source: Labour Force Survey, Manpower Research & Statistics Department, MOM & Eurostat

In comparison to other developed countries like Norway and Switzerland, Singapore has a relatively stable percentage of being unemployed long term over the past decade (largely lower than Switzerland and comaprable with Norway in recent years) but experiences higher degree of fluctuation due to economic downturn as it doubled from 0.6% in 2019 to 1.2% in 2021 during the COVID-19 pandemic.

• Underemployment Rate

Underemployment is a measure of the total number of people in an economy who are unwillingly working in low-skill and low-paying jobs or only part-time because they cannot get full-time jobs that use their skills. Underemployment is unsustainable for their living and can contribute to situational poverty.

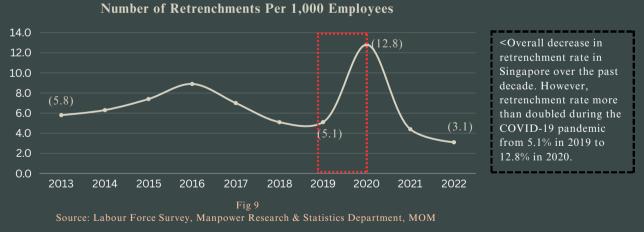


Overall, there is a strong employability in Singapore. However, Singapore is still relatively more vulnerable to economic downturns compared to other countries.

Job Stability

High job stability indicates that in the event of a global financial downturn, more individuals can still retain their employment position and continue to earn a stable form of income.

Retrenchment Rate



Likewise, job stability in Singapore is strong and improving but still quite vulnerable to economic downturns.

Situation poverty affecting only a small group and improving

A low long-term unemployment rate and under-employment rate indicates low levels of individuals undergoing situational poverty. Furthermore, a stronger employability and higher job stability, it indicates that there are lesser individuals suffering from situational poverty over the past decade. A potential cause for concern could be Singapore's vulnerability during economic downturns.

INTERGENERATIONAL POVERTY

Intergenerational poverty refers to a situation where poverty is continued across multiple generations within a family and a community. With effects of poverty (i.e. lack of adequate access to education, healthcare, housing and food) being passed down from their parents to their children and with limited opportunities for upward mobility, thus perpetuating a vicious cycle of poverty.

Measuring Intergenerational Poverty

By measuring how large of barrier it is in Singapore for people to escape poverty and improve their Social Economic Status (SES), we can determine the overall trend of intergenerational poverty. From a financial standpoint, this can be done by measuring the economic opportunities presented to the poor.

Improved Economic Opportunities for the Poor

In order to access intergenerational poverty in the form of financial well being, we can first access intergenerational income mobility as it indicates an increase/decrease of intergenerational poverty respectively. There are 2 forms of mobility:

Absolute Mobility: measured by the difference in income levels between sons and their fathers

Relative Mobility: measured by the relationship between the income ranks of children within their own birth cohorts and that of their fathers

• Increasing Absolute Mobility

One measurement of absolute mobility is the intergenerational correlation coefficient between the incomes of fathers and their eldest sons. Lower correlation coefficients suggests that sons' incomes are less closely related to their fathers' income and it indicates that mobility is higher as their child has more means to climb up the economic ladder with their own merits.



Intergenerational Correlation Coefficient using annual income

Source: MOF, 2012 & 2015

• Increasing Relative Mobility

The next measure of intergenerational mobility place emphasis on relative mobility. In the section, we measure the income ranks of children whose fathers are in the lowest income quintile.

Bottom Quintile of Parental Income	Youth's/Child's Personal Income Quintile					
	lst	2nd	3rd	4th	5th	
2019 (Singapore)	20.84%	25.05%	26.96%	10.90%	16.25%	
2015 (Singapore)	24.0%	22.0%	20.9%	18.8%	14.3%	
2015 (US)	33.7%	28.0%	18.4%	12.3%	7.5%	

Transition from bottom quintile of parental income

Fig 11 Source: (NYS, 2019) (MOF, 2015) (Chetty, 2015)

In 2015, only 24% continued to stay in the bottom quintile while the rest managed to escape. This result greatly out perform countries such as the US with 33.7% still staying in the bottom quintile. Our results has also improved leading up till 2019. This suggests that Singapore has indeed experienced higher mobility, especially amongst the ranks of the bottom parental income quintiles, hence imply intergenerational poverty generally improved.

MULTIDIMENSIONAL DEFINITION OF POVERTY

Expanding the current definition of poverty

The previous chapter largely explained poverty from an economic view point. Whilst it can be seen that only a small percantage of population in Singapore is affected, they are only affected by financial poverty. However, poverty is more than just due to poor financial wellbeing. What I am trying to convey here is the need to expand our definition of poverty beyond financial poverty. By doing so, we will soon realise that poverty itself is hidden in many parts of our population. The disgram below is the expanded definition of poverty:

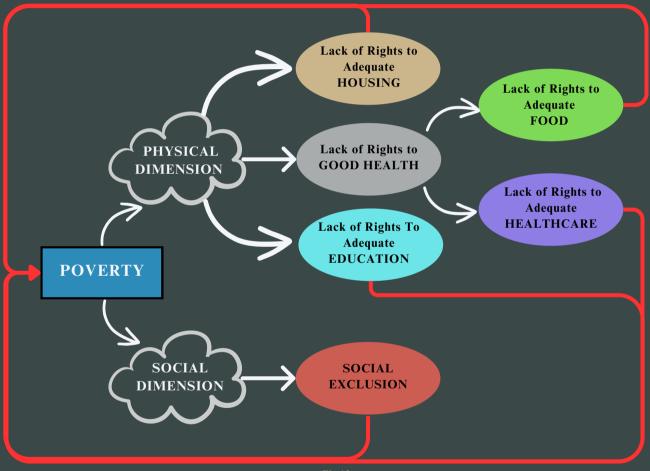


Fig 12

Structure of explanation of each factors

For each of the factors constituting to poverty, I will be discussing its...

- 1. Importance of factor contributing to poverty
- 2. Demographic of factor amongst the general population (comparison with the low income and how this inequality further entrenches them further into the cycle of poverty)
- 3. Cause(s) of lack of rights to the factor
- 4. Effects of these causes on factor
- 5. Consequential effects on poverty

LACK OF RIGHTS TO ADEQUATE HOUSING

Poverty can be induced by a lack of adequate housing. According to the United Nations Office of the High Commissioner Human Rights (OHCHR), adequate housing is a fundamental human right that all humans are entitled to.

Rights to adequate housing is defined by the following:



Fig 13 Source: OHCHR

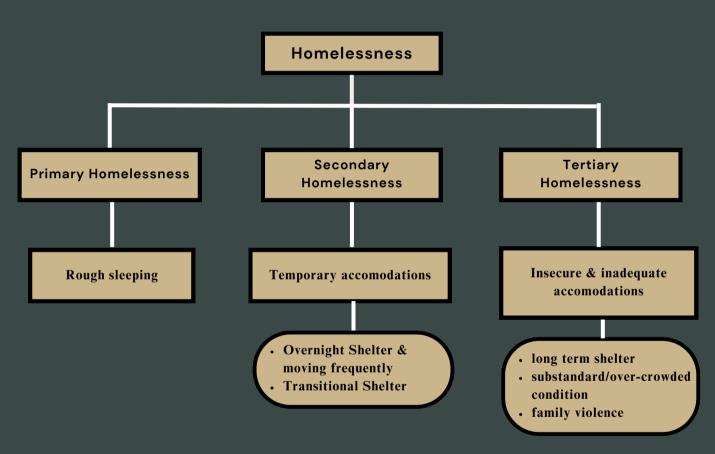
<u>Rights to adequate housing in relation to homelessness</u>

Housing is the basis of stability and security for an individual or family, and it should be a sanctuary — a place to live in peace, security, and dignity. A violation of the right to adequate housing occurs when housing is treated as a commodity rather than a human right. In the context of Singapore, despite being economically advanced country, a handful of people still experiences the most severe violations of the right to adequate housing — homelessness.

HOMELESSNESS

"Homeless Persons" is defined as those who do not have access to adequate housing. There are well-established associations between poverty and homelessness – poverty increases the risks of homelessness, which then makes it difficult to exit poverty (Bramley & Fitzpatrick, 2018; Johnsen & Watts, 2014). Low incomes also have a direct impact on the ability to access adequate housing.

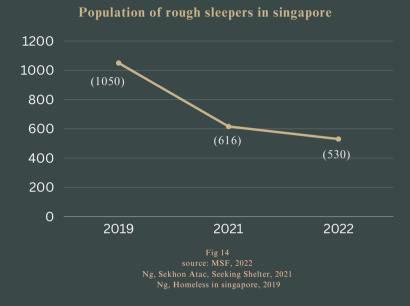
Different types of homelessness



There are 3 types of homelessness that we will be discussing in the following pages, each with their distinct features. Thereafter, we will also be looking into how poverty exacurbates the problems of homelessness; solutions currently implemented with its effects, and if more help can be provided.

PRIMARY HOMELESSNESS (ROUGH SLEEPING)

"Rough Sleepers" refers to all persons sleeping in public spaces, regardless of their housing circumstances (MSF, 2023). This is a form of inadequate housing due to the insecurity and inhabitability of public areas, which thereby constitutes to poverty.



Due to various government and Non-Government Organization (NGO) initiatives (will be further elaborated later), there has been a shrink of about 40% in the rough sleeping population in Singapore over the past 3 years. Though positive, more can be done to help further improve the state of rough sleeping population in Singapore.

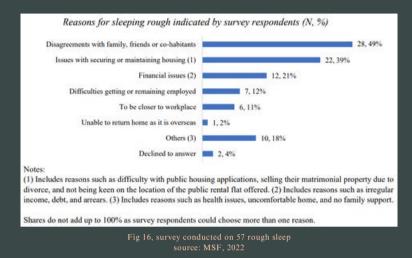
Importance of Providing Immediate Help



Around 44% of the 57 rough sleepers surveyed slept rough for more than a year and they are also the toughest group to convince to seek for help. This is because as they sleep out for long periods of time, they start to believe that they can get accustomed to this life and especially for the older population, change can scare them. Thus, it is vital to provide new rough sleepers immediate help.

Causes of sleeping rough

Despite a decrease in rough sleeping population over the years, most are still living in extreme poverty.



As shown above, issues with securing or maintaining housing, financial issues and difficulties getting or remaining employed are 3 of the main reasons for sleeping rough (excluding disagreements with family, friends or co-habitants) and are all financially related. Therefore with these existing issues at hand, they have little to no savings, and have to carefully ration any money they received by cutting back on basic needs like food and toiletries.

<u>Misconception</u>

It is a misconception that all rough sleepers are "financially burdened and poor" as some may choose to sleep rough due to reasons like being close to workplace or disagreements with family etc. However, anyone sleeping rough is considered to be living in poverty as public areas are considered inadequate housing.

• Inability to secure public housing

As mentioned earlier in fig 16, roughly 39% of respondent's reasons for sleeping rough is due to issues of securing and maintaining housing. One of the causes is due to the increase in property prices in Singapore over the recent years. This includes public rental housing, HDB resale and Build To Order (BTO).

Increased cost of:

• HDB Rental Housing

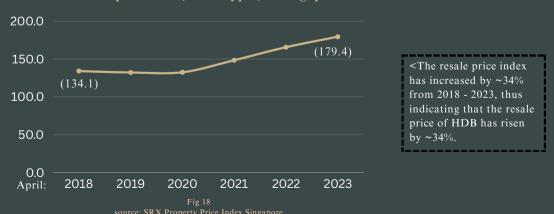
The HDB rental index is a measure of the average change in market rents for public housing flats in Singapore. Note that there are 2 forms of rental housing: market rental and governmental rental at highly subsidized below market rates. This index measures the former and not the latter form of rental housing.





• HDB Resale Flat

The HDB resale index tracks the overall price movement of the public residential market in Singapore.

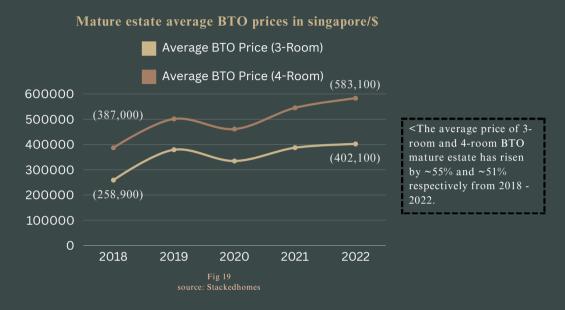


HDB resale price idex (all subtypes) in singapore

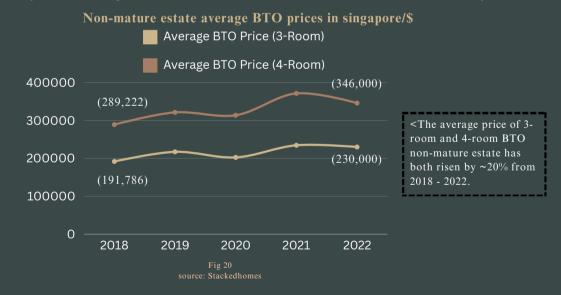
• BTO

It is a real estate development scheme enacted by the Housing and Development Board (HDB), a statutory board responsible for Singapore's public housing. It is first established in 2001, where it uses a flat allocation system that offers flexibility in timing and location for owners purchasing new public housing built by HDB themselves.

While there is no official definition for "mature estate", a common guideline is for the estate to be at least 20 years old.

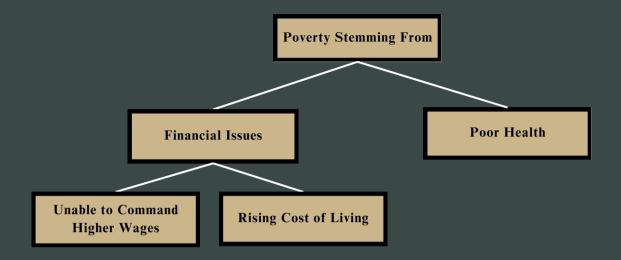


Conversely, a common guideline for non-mature estate is for it to be less than 20 years old.



With such a large spike in property prices in Singapore over the years, where even middle income individuals in Singapore are struggling to afford public housing, it is unimaginable how much financial burden the low income rough sleepers are facing. This is especially when they themselves are already living in poverty. In addition to struggling to sustain themselves with basic needs, they still have to face an even larger challenge in affording/renting a public housing. Hence, this causes rough sleepers to continue sleeping rough and live in a vicious cycle of poverty.

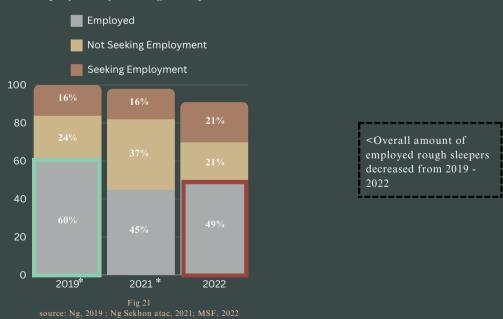
Effects of rough sleepering on poverty - Associated problems of rough sleepers contributing to poverty



• Poverty stemming from financial issues

unable to command higher wages

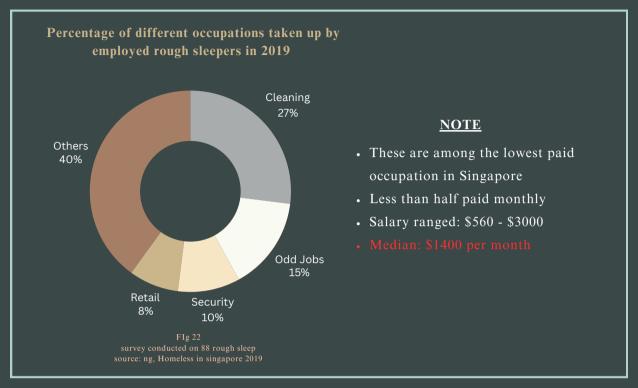
Due to relatively low education level of most rough sleepers, they are unable to attain sustainable employment and improvement in wages, hence being unable to cope with the rising cost of living in Singapore.



Employability of rough sleepers

*Sum of employed and unemployed not 100% as some declined to answer

<u>2019</u>



<u>2022</u>

- 43% earned more than \$300 per week (\$1200/month), while 32% earned less than that amount. (rest declined to answer)
- Inferred median wage \approx \$1400

Types of employment

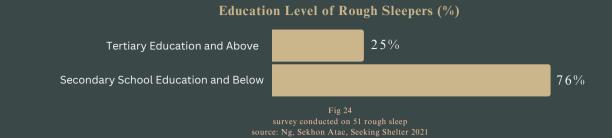
Full-Time (37%)	Part-Time (33%)	Casual Ad-hoc (30%)		
	Fig 23 survey conducted on 57 rough sleep source: MSF, 2022			

- $\sim 30\%$ of employed rough sleepers are casual adhoc workers, whereby they have no assured hours of work and hence, an insecure form of income.
- ~33% of employed rough sleepers are part-time workers. Under the Ministry Of Manpower (MOM), part-time workers are those under contract of service to work less than 35 hours a week.

Deduction from 2019 - 2022:

- Overall employment by rough sleepers have decreased.
- Lesser unemployed rough sleepers are seeking employment.
- There is no concrete increase in wages of the employed rough sleepers.

Unable to command higher wages - Low education level as main driver



With the majority of rough sleepers (76%) having secondary school education and below, they are only able to take on lower skilled professions (e.g. cleaner, dish washer & delivery services etc).

With Low skilled professions comes low paying wages. Their wage inflation increases disproportionately lower than that of other higher skilled professions, which provides higher wages, as shown below:

Monthly Wage	Wage Inflation (May 2021 - May 2022)
< \$2,500	2.5%
\$5,000 - \$7,499	11.1%
>\$10,000	13.6%

Source: DBS Group Research, 2022

In conclusion, higher unemployment has negated the slight increase in wage of employed rough sleepers due to wage inflation, resulting in stagnation of their wages. In addition, the low education level of most of the rough sleepers thus causes depressed productivity and prevents them from commanding higher wages and sustaining themselves.

Rising Cost of living





Source: Trading economics Singapore Inlfation rate

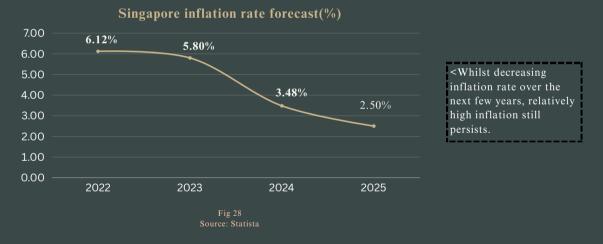
To put into perspective on the inflation on rough sleeper's daily necessities (highlighted in red box) in 2022 alone:

	Y-0-Y	M-O-M	Cumulative		Y-0-Y	M-O-M	Cumulative	
	Fo	bod		Transport				
î O î	▲6.4%	▲0.6%	▲4.4%	Ľ.,	▲20.2%	▲0.8%	▲ 16.9%	
	Clothing 8	Footwear			Comm	unication		
1	▲8.7%	▲1.8%	▲1.6%	0 0	▼1.1%	▲0.5%	▼1.6%	
_	Housing	& Utilities			Recreatio	n & Culture		
	▲6.0%	▲1.9%	▲5.0%		▲ 5.9%	▲ 1.5%	▲3.3%	
Ho	usehold Dura	ables & Serv	ices		Edu	cation		
=	▲2.2%	▲0.6%	▲1.9%	-	▲2.2%	▲0.1%	▲2.1%	
	Healt	n Care		м	liscellaneous (Goods & Serv	ices	
٢	▲2.7%	▲0.1%	▲1.8%	10	▲0.2%	▼0.1%	▲0.2%	
	10000000000000000000000000000000000000		▲ 1.8%	-110 ⁻				



For middle-income households, they have already felt the shock in the increase in prices of daily needs. The experience would only be worse for rough sleepers as cost of basic needs now takes up an even larger proportion of their monthly income than those in the middle-income households.

Rising Cost of living - inflation to persist in the long run

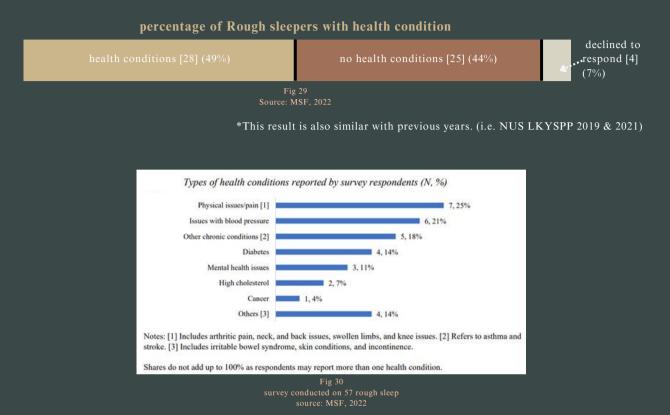


This will only set to worsen the situation that the rough sleepers are already facing, making it ever more difficult to sustain themselves.

• Poverty stemming from poor health

Poor health conditions

Individuals who sleeps rough tends to have some form of health conditions. In a survey conducted by MSF in 2022, with 57 rough sleeper:



Falling into the vicious cycle of poverty

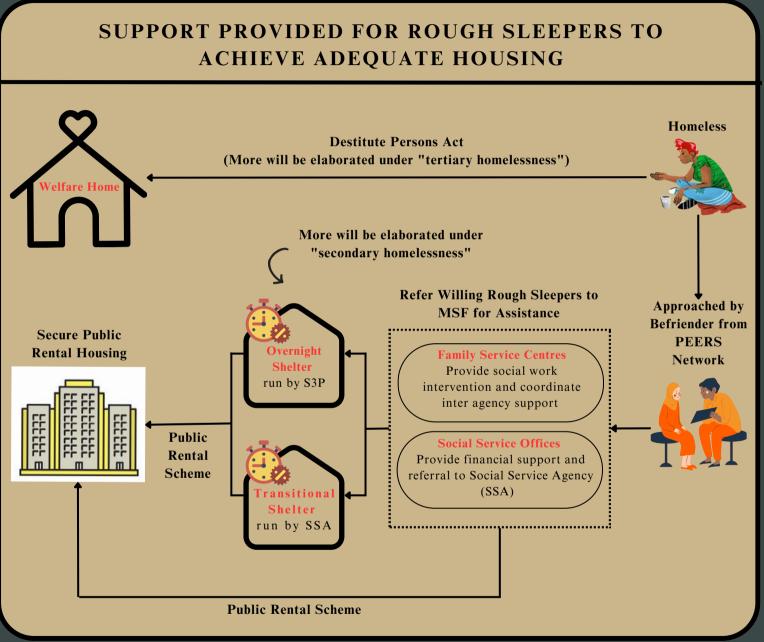
These are very troubling existential issues because they contribute to the continuation of rough sleeping and hence poverty itself. For instance:

- Poor health leads to participants losing their jobs, especially those in physically demanding occupations. Without any existing form of income, they are left with no choice but to continue to rough sleep.
- Mental health is also a very prevalent issue as suicide ideations were frequently mentioned, in connection with a sense of despair about their family, financial and housing situations (Ng, Sekhon Atac, 2021). These mental health problems lower their already low standard of living.

What further exacerbates this situation is the fact that most rough sleepers are already facing issues with sustaining themselves, let alone having the fund to seek treatment for their health problems. As such, they are left with no choice but to tolerate the existing health problems. This defies human rights (according to UN) that states that all human must have the rights to healthcare and ensures an adequate standard of living through illness.

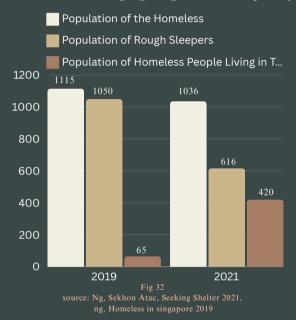
Acknowledgement of imrpovement

With the problem's causes and effects in mind, there has been collective efforts made not just by the government, but also Non-Governmental Organisations (NGOs) as well, to reduce and dissuade individuals from sleeping rough.



SECONDARY HOMELESSNESS (TEMPORARY SHELTER)

Secondary Homelessness refer to people living without a stable accommodation, who are staying in temporary shelters. With homelessness getting increasing attention after increasing awareness made, this has spearheaded the increase in temporary shelters provided for the homeless rough sleepers by both the government and NGOs. Temporary shelter for the homeless includes both overnight shelter (run by NGOs) and transitional shelter (funded by state).



population of homeless sleeping rough and in temporary shelter

The percentage of the number of street homeless persons fell by 41%. On the other hand, occupancy in temporary shelters increased more than sixfold. This signifies that primary homelessness was partially replaced by secondary homelessness over the course of the 2 years.

OVERNIGHT SHELTER

<u>Purpose</u>

Provide temporary accommodation for individuals who are homeless or in need of emergency housing. These shelters offer a safe and secure environment, along with basic amenities and support services. Overnight shelters with a low entry bar and immediate availability may provide an important lifeline and an opportunity to regain stability.

<u>Characteristics</u>

Characteristic	Reasoning
Specific time interval for all individuals to vacate (morning) and enter (evening). No entry of premise from morning until the evening	These facilities are occupied for other services (i.e. worshipping for church etc.) and is only converted to a night shelter after the normal working hours
No entry or exit of premise between the time the shelter closes at night until morning	Prevent any disturbance of sleep to other individuals living in the shelter
Each overnight shelter has a shelter in-charge (not paid) that organizes a duty roster for each individual to clean a different part of the facility	Maintain the hygiene and cleanliness of the facility
Basic amenities such as washing machines and toilets are shared among all individuals living there	-

Fig 33

Safe Sound Sleeping Places (S3P)

They are the only one offering overnight shelters in Singapore, with 26 S3Ps around Singapore as of 2022. The S3P initiative is established in January 2020, and led by the Ministry of Social and Family development's (MSF) Partners Engaging and Empowering Rough Sleepers (PEERS) network to counter the urgent need to provide safe and secure spaces to the increasing number of homeless individuals in the community, which has been escalated in the midst of the covid-19 pandemic.

In collaboration with religious organizations, community centers, and voluntary welfare organizations, these locations open their premises to offer temporary overnight accommodation for homeless individuals who have no alternative housing options during nights when other social service agencies are closed. These locations are equipped with basic amenities to ensure the safety and wellbeing of individuals seeking shelter.

Furthermore, they connect them with appropriate social service agencies for further assistance during the day. After accessing the individuals current situation and preference, their respective social worker can potentially refer them to transitional shelters (for comparatively longer duration of stay) or applying for public rental flat if possible.

TRANSITIONAL SHELTER

<u>Purpose</u>

Designed to provide temporary accommodation and support for individuals and families who are transitioning from homelessness to more permanent housing solutions (priority is given to vulnerable families with urgent needs). These shelters aim to help residents stabilize their lives, develop necessary skills, and secure sustainable housing options. Likewise, each tenant will be assigned to a social services worker to help guide them towards obtaining adequate housing.

They are usually repurposed from old Housing and Development Board (HDB) flats. There are 680 units, each of which may be shared between up to six occupants, run by three operators (CNA, 2023).

Characteristic	Reasoning
No visitors allowed	Ensure that tenants live in a safe environment without the presence of potential harm from taking place
No smoking and no pets allowed	Cater to different people's grievance
Each tenant is only entitled to 1 room and not allowed to use other rooms available	New tenants may be bought in to live with them at any time
Unlike overnight shelters, transitional shelter does not have curfews/opening hours	-
A heavily subsidized rent is charged monthly to tenants (rent depends on organization, duration of stay, location and tenant's financial situation)	-

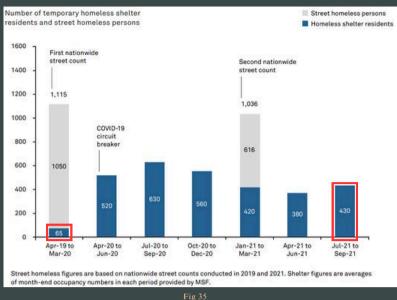
Characteristics

Fig 34

Effects of temporary shelter on poverty

• Providing homeless individuals a form of shelter

The rise of temporary shelter since the inception of COVID-19 pandemic has replaced primary homelessness (rough sleepers) with secondary homelessness. This served as a short term solution and provided a roof over most of the homeless individual's head, who would have otherwise continued/begin their rough sleeping tenure.





• More convenient access to help

Once in the temporary shelter, each individual will be assigned to a social service worker that can help to understand their situations. Thereafter, the social worker can provide long-term solutions and options for the individual going forward after leaving the shelter.

Furthermore, social workers can also aid individuals in applying subsidies for necessities such as food and public rental flats if requirements are met. These are important factors as homeless individuals may not be fully aware of all the available help they can receive.

Hence, these forms of help can accelerate them towards fulfilling all the basic needs that they have previously been lacking and achieve adequate housing.

HOWEVER...

• Still lack adequate housing criteria

These temporary shelters are not secure tenures for homeless individuals since they are only allowed to live there for a fixed period of time (less than 1 year). Thereafter, they are forced to move out so as to not create a superficial sense of over-reliance on these shelters as their permanent "homes".

While it is true that the implementation of temporary shelter serves as a short term solution towards primary homelessness and also creates a platform for these homeless individuals to receive help, they cannot be relied upon in the long term as these temporary shelters are not adequate housing and not currently designed to be their final stop.

In the long run, the effectiveness and sustainability of shelter services also depend on the availability of more stable and permanent options in the housing landscape into which shelter residents may graduate (Ng, 2019).

TERTIARY HOMELESSNESS

Tertiary homelessness refers to individuals who experience chronic homelessness and/or face significant barriers to securing adequate housing. The difference between tertiary homelessness and primary & secondary homelessness is that individuals categorized under tertiary homelessness has a permanent form of housing, while the latter does not. However, the housing they possess are either insecure and/or inadequate.

This form of homelessness is usually overlooked as they tend to be hidden and difficult to measure (causing the number of research done on this form of homelessness to be minimal in Singapore), and that their problem exist beyond just a form of roof above their head.

Different forms of tertiary homelessness



DOMESTIC VIOLENCE

According to MSF, Domestic violence refers to patterns of violent, threatening, abusive or controlling behaviours within the family, household, current or former intimate relationships, that cause hurt and/or fear for the safety and well-being of people involved. Domestic violence can include:

- Physical
- Emotional
- Psychological
- Sexual
- Neglect

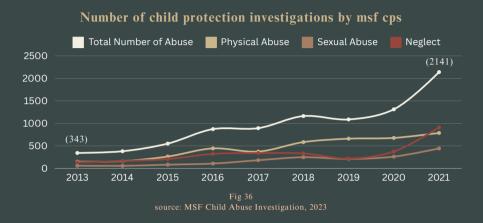
Domestic violence contributes to tertiary homelessness because despite having a permanent housing; a broken family, where abuse is prevalent, causes the safety of the abused family member(s) to be compromised. This results in the abused not feeling a sense of security in their home, making it an inadequate form of housing and thereby contributing to homelessness.

This issue of family violence has been increasingly pressing issue as it has been on the rise over the past few years across Singapore, as indicated in both child and spousal abuse.

Demographic

• Child abuse

According to MSF, Child abuse involves any tangible or intangible actions by an individual (e.g. parent or caregiver) that jeopardize a child's physical or emotional well-being. The number of child abuse cases has increased as seen by an increasing number of child protection investigations by MSF Child Protective Service (CPS).



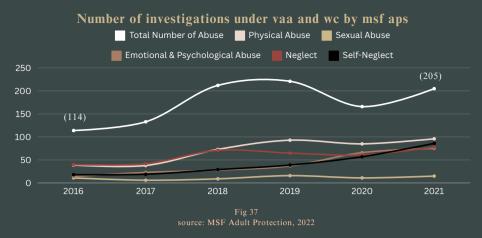
From 2013 - 2021, the total number of child protection investigation has increased by close to 7 fold. It has also seen an increase in every year (with the exception of 2018-2019) with a spike from 2020-2021. This has similarly been the case for the 3 different types of child abuse as well (i.e. physical abuse, sexual abuse and neglect).

This spike in cases from 2020-2021 can be attributed to the COVID-19 lockdown in Singapore as children and family members are forced to work at home, causing them to be in close proximity with their perpetrators (OHCHR, 2020). Furthermore, economic instability causes financial setbacks, thus exacerbating the situation by further increasing the tension of family members. This causes their children to be caught in between the cross fire.

• Spousal abuse

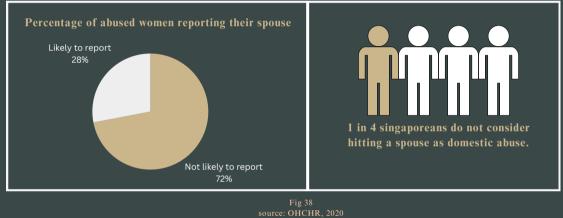
According to MSF, spousal abuse occurs when one spouse in the marriage employ methods, physical or non-physical, to exert control and instill fear in their partner. Physical methods include slapping, shoving and punching, while non-physical methods are verbal insults, threats of violence and neglect.

Similarly, the number of spousal abuse has also increased, as seen by an increase in number of investigations under Vulnerable Adult Act (VAA) and Women's Charter (WC) by MSF Adult Protection Service (APS).



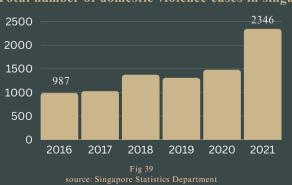
Whilst the increase may seem small compared to child abuse, these numbers presented here is actually an underestimation of total number of spousal abuse in Singapore as many abuse have gone by unreported, especially during the covid-19 pandemic lockdown in 2020.

According to a research conducted by United Women Singapore (UWS), in collaboration with IPSOS, it was reported that:



After taking into account all the unreported cases, the actual number would be many times larger than the current reported cases!

Severity and its impact on tertiary homelessness



Total number of domestic violence cases in singapore

This is a pressing issue as the increase in the total number of domestic violent cases in Singapore (which is still an underestimation as aforementioned) thereby increases the number of tertiary homeless individuals by a substantial amount.

LONGER TERM SHELTER

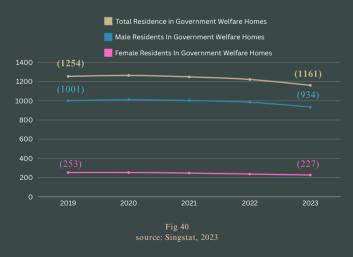
Those living in longer term shelters are considered tertiary homelessness due to the nature of the individuals they cater to and the level of support they provide for them. While these long term shelters offer security and stability, individuals residing there may still face challenges in achieving independent living and finding permanent housing solutions. This sheds light on the ongoing housing insecurity and vulnerability faced by these individuals, despite having access to longer term shelter. There are 2 types of longer term shelter: Welfare home and sheltered home.

Welfare home

Welfare homes are residential facilities that provides accommodation, care and rehabilitation for female and male destitutes (under the Destitute Persons Act) who are unable to live independently/sustainably due to various reasons like age, physical, financial and social circumstances. Welfare homes are then relied upon as a long-term housing option.

According to the Destitute Persons Act:

- A 'destitute person' includes any idle person found in a public place, whether or not he is begging, who has no visible means of subsistence or place of residence or is unable to give a satisfactory account of himself
- Public officer acting under the direction of director-general of social welfare or police officer may take in his charge any destitute person and deliver him to the custody of the director-general
- A penalty for being a habitual beggar to a fine not exceeding \$3,000 or to imprisonment for a term not exceeding two years
- May be required to reside in a welfare home.



Demographics

It can be seen that there has been a general decline (although minute) in residence in welfare homes over the past 5 years. This shows that the population of tertiary homeless individuals due to welfare homes have been on a decline.

Sheltered home

Sheltered home provides support and accommodation for low-income elderlies, who have no substitutable form of housing and no family member or caregiver to look after them. Sheltered home's aim is to reintegrate them back into the community. This is also another form of long-term housing option for individuals.

According to Agency for Integrated Care (AIC), it costs between \$400 and \$700 a month to stay in a shelter or community home (before means-testing).



Demographics

Likewise, the population of residence in sheltered homes have declined over the past 5 years, signaling that the population of tertiary homeless individuals due to sheltered homes have been on a decline.

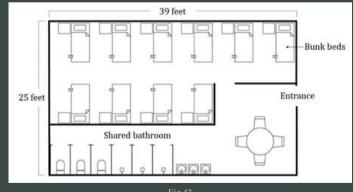
SUBSTANDARD/ OVER-CROWDED LIVING CONDITION

Living in a permanent housing does not guarantee an escape away from homelessness, as the substandard conditions that persist in the household itself can prove to be inadequate for living. Hence, this contributes to tertiary homelessness. Whilst this issue may not be prevalent in the public housing of Singapore (though it may have gone across as unreported), more can be desired for the migrant worker dormitories here in Singapore.

Migrant worker dormitories

With much emphasis being placed on the development of increased housing quality in public and private housing over the past few years; other than a small number of low wage migrant workers being qualified for public rental housing, the rest of the semiskilled and low skilled migrant workers are largely excluded from them. According to Ministry Of Manpower (MOM), there is a rough estimation of more than 323,000 of them living in 53 Purpose-Built Dormitories (PBD), operated by commercial operators.

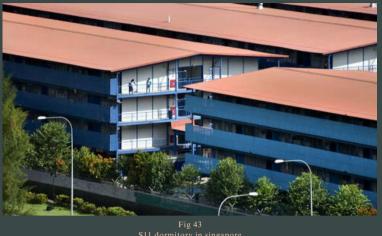
Their dwelling conditions in the dormitories, especially in older dormitories, have been frequently reported to be extremely poor due to high population density, low housing floor area per capita, and highly shared public facilities (Jiren Jieming Yan Guo, 2022), as shown below. As such, this contributes to tertiary homelessness and poverty, causing poverty rate to be much higher if the situation of low-skilled migrants were to be included in the analysis of issue.



Dormitory condition

the layout of a typical old dormitory room with double decker beds (20 person) (source: transient workers count too)

Example - S11 Dormitory @ Punggol



S11 dormitory in singapore (Photo: Albert Chua/EdgeProp Singapore)

This dormitory is advertised as the "cheapest dormitory in Singapore" and was also one that houses the biggest COVID-19 cluster in Singapore:

- One migrant dormitory can contain up to 14,000 workers in 4-story buildings spanning an area of 5.8 hectares.
- The population density of a migrant dormitory can be as high as 241,379 persons/km²
 This is almost 3 times the average population density of Singapore (8900 persons/km²).
- Each person has an average living space of 4.529 m² with less than 2.5 m² for themselves (minimum living requirement by the government is 4.2 m² as of 2023)
 - In comparison to the living conditions of local communities, we have an average housing floor area per capita of 69 m² in a 3-room public flat (Sing et al., 2006).

Effects on public health

By living in dormitories with such substandard and overcrowded conditions, this jeopardizes the public health of the migrant workers. This forces them to be more frequently exposed and susceptible to high risk of infection and exacerbate the spread of diseases/contagious-illnesses (Parikh et al., 2020) as well, resulting in worsening health conditions. Its low habitability therefore makes it an inadequate and insecure form of housing and contributes to tertiary homelessness in Singapore.

Example - COVID-19 pandemic

Due to the COVID-19 pandemic, the substandard and overcrowded conditions in migrant worker dormitories accelerated the spread of COVID-19 virus among the workers themselves and consequentially became the largest COVID-19 cluster to exist in Singapore:

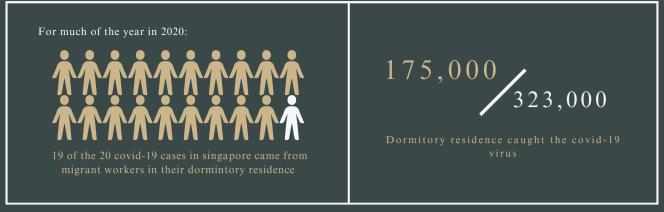


Fig 44 source: Justin Ong from The Straits Times, 2022

Increased rental rates exacurbates issue

The increase in demand on foreign workers outweighs the increase in supply for dormitories/bed, driving up the price of the rental rates to around \$450 per month, an increase of between \$50 - \$100 per bed (Lim YL, Wong, 2023). This adds to their financial distress from their already low wages and thus have to compromise on other basic needs.

• Increase demand of foreign workers



As shown above, there is an increase of $\sim 12\%$ in the number of work permit holders in CMP sectors from before the COVID-19 pandemic (in 2019) and after the pandemic (in 2022), hence proportionally corelating to an increase in demand of foreign workers. As a result, all 256,000 beds in 53 PBDs in Singapore are essentially operating at full capacity as of 2023, higher than the 88% cited by the Ministry Of Manpower (MOM) at the start of the pandemic.

• Minute increase in supply of dormitories/bed

There is unlikely to be any new dormitories coming until 2025 due to short term constraints of dormitory constructions (Lim YL, Wong, 2023). While there may be small injections of beds into dormitories with excess space, this would be minute in comparison to increasing migrant workers coming in.

Acknowledging actions done to improve situation

• Improved living standards for future migrant worker dormitories

For new migrant worker dormitories to be built, there are stricter housing requirements to be met:

Standards	Old	Improved
Occupancy per room	12 - 16 residents per room	≤ 12 residents per room ≥ 1m spacing between beds
Ventilation	Subjected to BCA's standards for natural ventilation	Additional requirements: ≥ 1 exhaust fan per toilet Reasonable number of fans spaced out throughout room for sufficient air circulation
Toilets	\geq 1 set of common /ensuite toilet, bathroom, sink and urinal for 15 residents	≥ 1 set of ensuite toilet, bathroom, sink for 6 residents
Living space (excluding shared living facilities)	≥ 3.5sqm per resident	≥ 4.2sqm per resident

Fig 46 source: MOM

• Expansion of Foreign Employee Dormitory Act (FEDA)

As of 1 Apr 2023, FEDA's coverage is extended to ~1500 dormitories (Ng, 2023), including Factory Converted Dormitories (FCDs) and Quick Built Dormitories (QBDs) instead of just 53 PBDs alone. This places has to meet authorities requirements, which was previously lacking in FCDs and QBDs.

Making a case for our low skilled/semiskilled migrant workers

Even though actions has been taken place to improve migrant worker dormitories condition, the inability to cool down rising rental rates creates a cause for concern. Whilst one may argue that they are just foreign labourers that came to Singapore to earn a living for themselves and their family back home, we should not discount the fact that they are still living in Singapore and has equal opportunities to have access to adequate housing regardless of citizenship, types of labour and ethnicity. Although accommodation is provided to these migrant workers in the form of cheap rental dormitories, the concomitant socio-spatial exclusion have trapped dwellers of such housing in a vicious cycle of poverty.

CLOSING THOUGHTS (lack of adequate housing & homelessness)

After reviewing through the different types of homelessness and their direct relationship with poverty in Singapore, we can gain more awareness of this community. As shown in this whole chapter, homelessness does not just consist of individuals living on the streets and without a home, but also includes individuals with a roof above their head as well. What we should work towards - in effort to eradicate poverty - should not only provide every individual an affordable housing, but most importantly, a secure and adequate form of housing for each and everyone in Singapore.

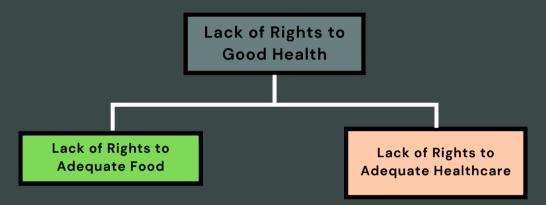
With an increase in domestic violence cases, a small decrease in destitute residing in longer-term shelter, and a rise in number of low-skilled/semiskilled migrant in Singapore, it can be deduced that tertiary homelessness is on the rise. As such, I believe more attention should be focused and awareness to be spread on this aspect of homelessness. While efforts have been put in place to rectify them, the results have shown otherwise, which prompts us to believe that these efforts are insufficient and more can be done.

LACK OF RIGHTS TO GOOD HEALTH

What is lacks of rights to good health?

According to the World Bank, the lack of right to health in relation to poverty, includes insufficient quantities of (lack of access to adequate) food and healthcare.

- Access to Adequate Food*: includes the rights to not only sufficient quantities but also nutritious food as well.
- Access to Adequate Healthcare*: includes the rights to both afforable out-of-pocket spending on care (such as consultations, tests and medicine) and also transportation costs and any informal payments to providers.



*Indepth assessment will be conducted on both of them in the subsequent chapters.

Importance of good health

In 1946, the World Halth Organisation (WHO) envisages:

"...the highest attainable standard of health as a fundamental right of every human being"

The violation of this human right can vastly affect our ability to contribute to the economy; and especially for the poor, good health can allow them to be active and productive in order to earn a living and potentially break out of their poverty cycle for their future generations.

Demographic of health in Singapore

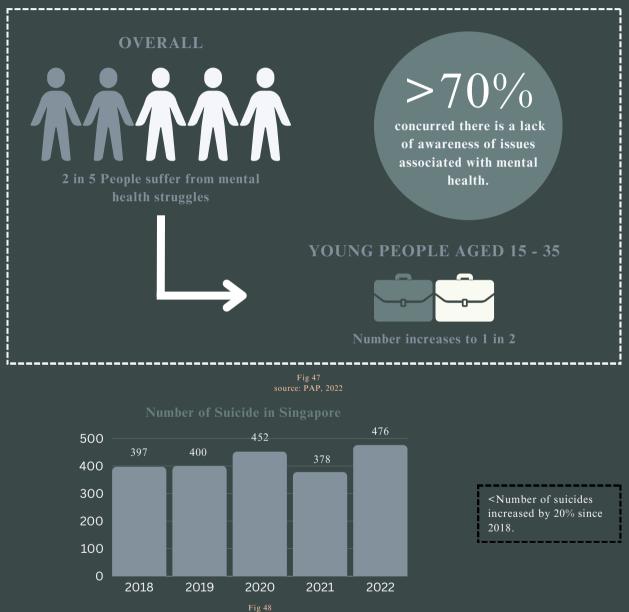
Singaporeans enjoy one of the longest life expectancies in the world, which is currently at 83.5 years, and is expected to increase to 85.4 years in 2040. However, this is at the expense of worsening mental health and increasing physical health problem.

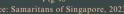
• General Population

Increasing prevalence of mental health problems

In the aspect of health, especially in Singapore's stressful work environment, where the "hustle culture" has been integrated into the mindset of every individual, we must take care of not only our physical but mental health as well. Mental health problems has been often overlooked while being largely prevalent in Singapore today.

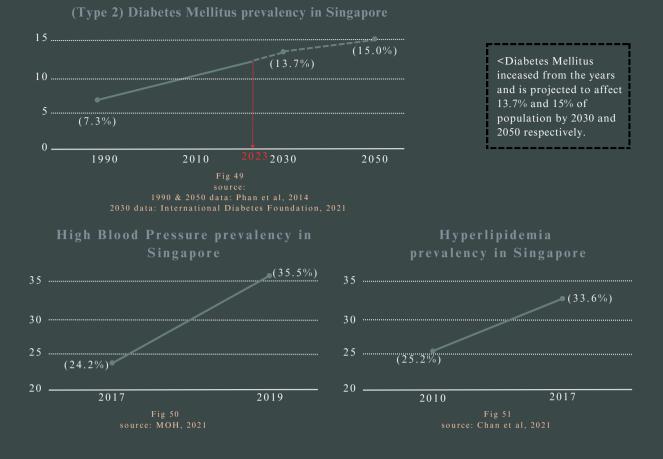
According to a survey of 607 Singaporeans conducted by PAP's youth wing:





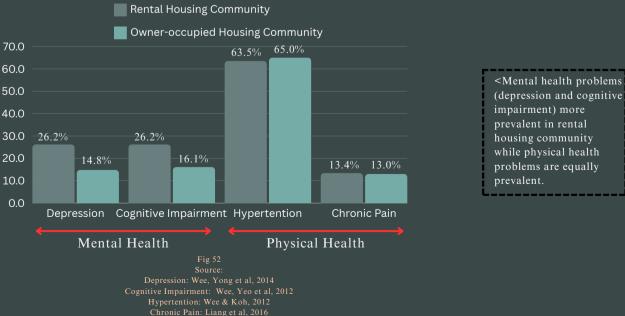
Physical health problems increasing

People in Singapore are also becoming less healthy. A local study revealed that more than half of Singaporeans aged 60 and above suffer from more than one chronic condition, causing a growing phenomenon referred to as 'multi-morbidity' (Cigna, 2021). As our life expectancy continues to increase, a worrisome rise in chronic diseases can be seen:



• Low-income population

As mentioned previously, majority of those living in poverty are from the low-income households. Research has shown that through the study of people living in rental housing, households being poorer can play a negative role on the health of individuals. (HDB's public rental flats are for low-income citizen households who cannot afford to buy a flat and have no other housing options or family support.)



Percentage of individuals facing health problems in their community

While the disparity in mental health of individuals living in rental housing and owner-occupied housing is apparent, the physical health of rental housing household still ultimately lose out. This is because whilst hypertension rates in rental housing is slightly lower, the residents had poorer awareness of their disease (Chan et al, 2018), hence being unable to treat them effectively.

Such inequality results in the the poor continuing to be poor. Since being poor leads to poorer health, they would then be pushed further into poverty. With this cycle continously recurring, it becomes increasingly difficult for them to break out of this cycle.

LACK OF RIGHTS TO ADEQUATE FOOD (FOOD INSECURITY)

According to the UN Food and Agricultural Association (FAO), there are four key dimensions to food insecurity:

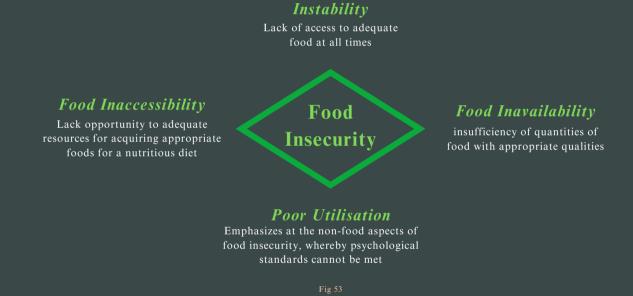


Fig 55 ource: UN FAC

Misconception

The presence of hunger is not seen as a sign of food insecurity. Rather, limited access to adequate nutritious food for a stretch of time (weeks or months) may deem a household to be food insecure. (The Hunger Report, 2018)

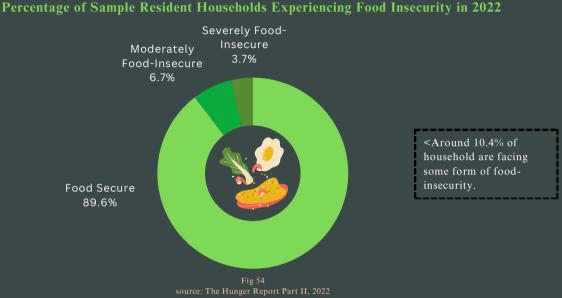
Importance of addressing food insecurity

Basic needs are which all individual are entitled to, including access to adequate amounts of nutritious of food. Food is a key factor in poverty reduction as it enables individuals and families to break the cycle of poverty by providing them with the energy and resources needed to engage in income-generating activities.

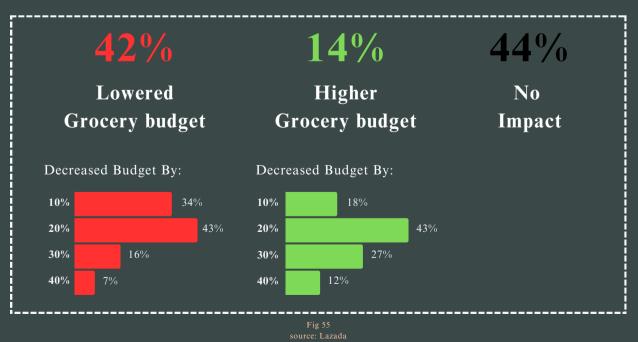
Food Insecurity demographic in Singapore (Hidden Poverty)

• General population - Substantial number of households are foodinsecure

Despite ranking first in the world by the Economist Intelligence Unit as the most food-secure nation on the Global Food Security Index in 2019, a substantial number of individuals in Singapore still faces food insecurity. According to The Hunger Report conducted in 2022 in Singapore:



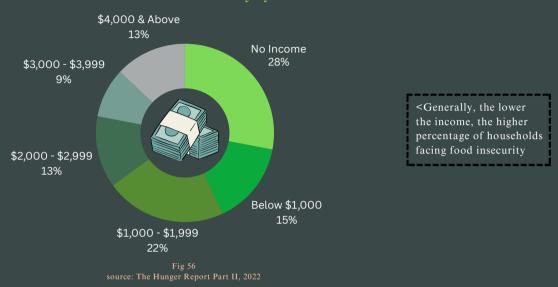
Furthermore, a recent report has also shown that in 2023, a substantial proportion of Singaporean household has also cut back on their grocery budgets amidst rising cost of living. This potentially causes many of them to face food insecurity as well and inflate the results shown previously.



This indicates that food insecurity still exists and remains a pressing issue in a country as affluent as Singapore.

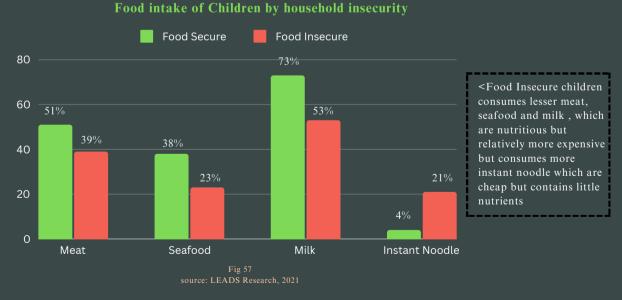
• Lower income households - More prevalent

Low income is typically positively correlated with the experience of food insecurity:



Distribution of household food insecurity by income in 2022

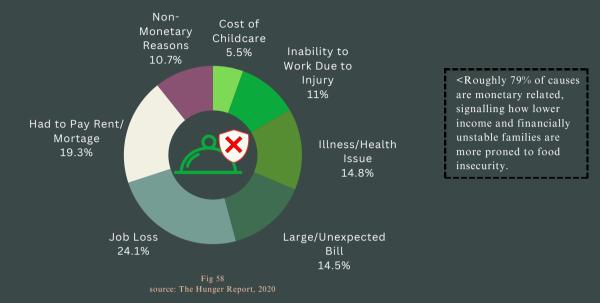
This result does not come as a surprise considering how lower income households tend to be less able to afford enough nutritious food for consumption.



Since most food insecure households originates from lower income households, this data justifies that most low income children, and hence their household, are food insecure as most are unable to afford sufficient nutritious food and hence consume un-nutritious food as a substitute since they are cheaper.

Causes of food insecurity

According to a survey conducted in 2019 (The Hunger Report, 2020), some common reasons for food-insecurity experienced by participants include:



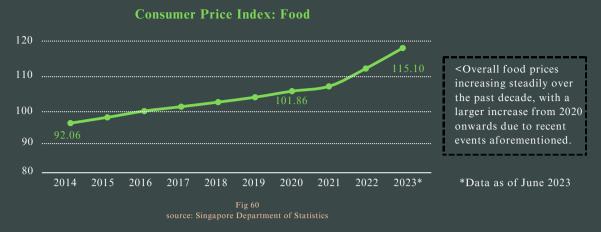
Common Reasons Cited by Food-insecure Participants for their Food Insecurity

However, in recent years, another monetary reason has been gaining prominence as a leading factor to food insecurity among households: Food Price Surge.

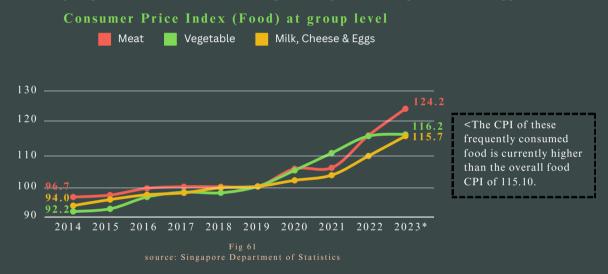
• Food Price Surge

As globalisation continues to be in the forth run of our century, recent events happening around world has impacted global food prices.





While it can be seen that overall food prices increased, an indepth look into the incease in price of different groups of food can show that the price surge is even higher than as suggested.



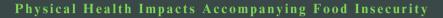
With the price increase of these food items being higher than what the overall food price suggests, it has a greater impact on individuals and households as food now takes on a larger proportion of people's income (especially larger for the lower income household). Households (especially the lower income) could potentially cut back on quantity of food bought, potentially excerbating food insecruity in Singapore.

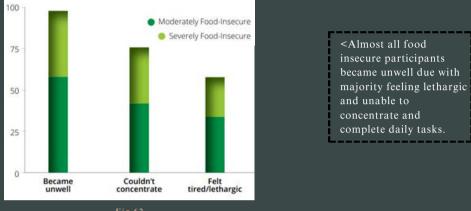
All of this reiterates that income is a persistent factor of food security since majority of the reasons are centred around fincancial constraints.

Effects - Deterioration of health

• Worsening Physical Health:

Nutritious foods all contains vitamins and healthy fats that are beneficial to oneself's physical health. A lack of sufficient nutritious food consumed by oneself would then starkly affect their physical health, making them more susceptible to illnesses and being more listless as shown below:

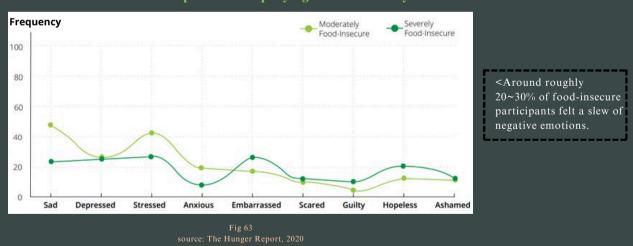






• Worsening Mental Health:

Not only is food insecurity associated with worsened physical health but mental health of oneself as well.



Mental Health Impacts Accompanying Food Insecurity

The inability of most food-insecure households to afford and obtain sufficient amounts of nutritious foods results in a tendency for them to feel a sense of urgency and as though they have let down their family. These negative feelings can take a toll on the mental health of oneself, making them more and more depressed if the issue of food insecurity persist in the long run (with the potential of suicidal intentions).

Consequential Effects on poverty

• Health implications leading to increased healthcare cost

As aforementioned, food insecurity can:

- 1. Lead to oneself becoming more susceptible to illnesses, which requires medical attention via a visit to the doctor.
- 2. Potentially lead oneself to a depressive state and become mentally unhealthy to a point whereby mental health therapy is required.

All of these adds up to their healthcare cost and increases steadily with increased severity of household food insecurity (Wellington-Dufferin-Guelph Public Health).

This is detrimental to the state of poverty since majority of food insecure individuals are from the low income households. This increase in healthcare cost will place an even larger burden on them as more frequent medical care causes financial problems and potential debt (Finkelstein et al. 2011); when they are already desperately trying to make ends meet. As such, this entrenches them even further into poverty, showing the viscious cycle of poverty.

• Aggravates mobility

Career mobility of parents/individuals are dampened since they have to allocate more time to feed their family and running their household. Such prioritization results in little to no time for them to improve relevelent/learn new skillsets or even network effectively. Mental illness, poor motivation, and unsatisfactory job performance could suffice in these food insecure individuals that likewise limits their career mobility. (Clarke, 2018)

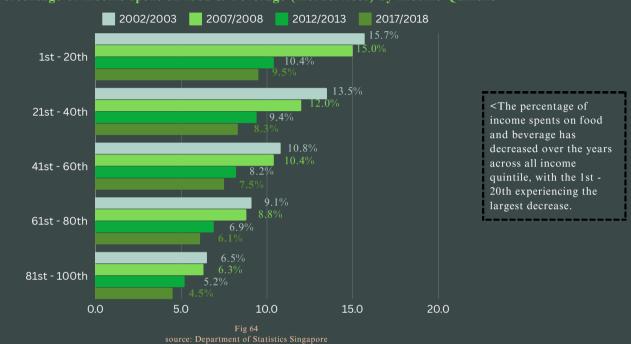
Educational mobility of children are likewise dampened as studies has shown that parents in foodinsecure households exhibit greater emotional distress, diminished parental warmth, and increased punitive parenting practices, also contributing to their children's behavior problems (Xuejiao & Wei-Jun, 2024). This thereby affects the children's cognitive ability, hindering their efforts to achieve greater academic results.

Economic immobility worsened with effect of degrading health, which not only results in increased health cost, but also decreased productivity at work or even inability to work. This results in a decrease in disposable income available to save for retirement or invest for future returns, ultimately leading to a lower quality of life. (Clarke, 2018)

Socioeconomic immobility worsened as a result of dampened career mobility, educational mobility and worsened economic immobility.

Acknowledgement of improvement

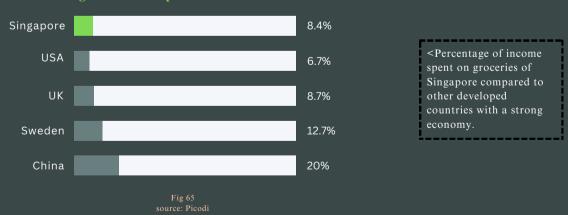
While there are still many factors of food insecurity that needs to be dealt with, Singapore has in fact seen large progress in their efforts to eradicate food insecurity among the households over the years:



Percentage of income spent on food & Beverage (inc. services) by Income Quintile

A lower percentage of income spent of food signifies that households can now focus a larger portion of their income on other basic needs whilst being able consume sufficient food at the same time.

With respect to the other countries around the world, Singapore is ranked 2nd in terms of percentage of income spent on groceries by households, trailing just behind the US:



Percentage of income spent on Groceries in 2023

All of these improvements can be attributed to the help of various NGOs such as Food Bank Singapore and charitable organisations like Willing Hearts, that provides free meals and other food for those in need. The government has also provided help such as the provision of NTUC vouchers for food-insecure housholds to obtain neccesities at a cheaper price point; and also ComCare assistance for low income household whereby various forms of financial aids are provided.

CLOSING THOUGHTS (LACK OF RIGHTS TO ADEQUATE FOOD)

By taking into consideration of the rising food prices and the aftermath of COVID-19 pandemic that exacerbated many different forms of poverty, as Ms He Ting Ru, the Workers' Party Nember of Parliament for Seng Kang GRC mentioned:

"It is imperative that we ensure that lower income households do not end up drastically cutting back on nutrition given ever-increasing costs..." (He, 2023)

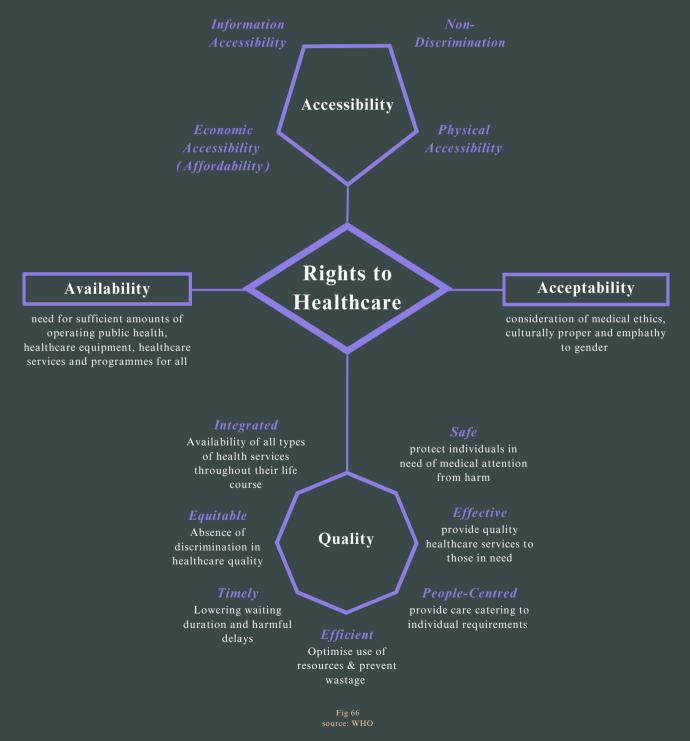
Instead, we must focus on making food affordable, accessible, adequate and sustainable for the present and future generations to come so that no one can be deprieved of this extremely fundamental and basic need.

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LACK OF RIGHTS TO ADEQUATE HEALTHCARE

Lack of rights to adequate healthcare remains a pressing global issue, reflecting disparities in access and quality of medical services. Despite several advancement in medical techonology that increased accessibility to adequate healthcare in developed nations, some are still left out. Such deprivation not only undermines individuals' fundamental rights but also perpetuates the cycle of poverty and ill-health.

According to the World Health Organisation:



Importance of rights to healthcare

• Physical Healthcare

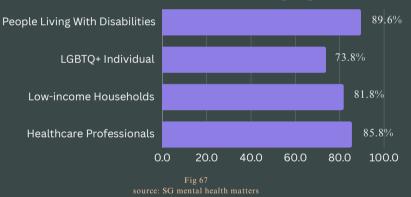
Physical healthcare services are instrumental to a functioning and productive society and all individuals should be entitled to these services without any cause for concern. This is especially the case for Singapore, where a (projected) rise in life expectancy over the years and future, coupled with an ageing population, will eventually result in an increase in demand for physical healthcare services.

The deprivation of physical healthcare services to the low-income can prevent them from having a healthy body to break themselves out of their cycle of poverty.

As such, it is important for Singapore to allocate enough resources to cater for these problems. This includes the supply of healthcare professionals, healthcare facilities, medicinal drugs and healthcare coverages.

• Mental Healthcare

With Singapore being one of the most stressful country to live in (Cigna, 2022), mental health has become an increasingly important aspect of our overall health. The need to treat mental illness is especially important in the case for vulnerable groups of individuals in our society, since they have a higher association of mental health risk:



Mental health risk of Vulnerable groups

Therefore, more attention should be focused on providing greater healthcare accessibility and services for them to prevent any individuals from the deprivation of such basic needs.

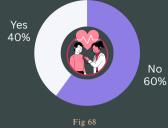
Demographic of rights to adequate physical healthcare services

• General population

Information Accessibility

Early detection (and prevention) of chronic diseases and critical illnesses via health screenings has been a quintessential way for individuals to discover their illness (if they have any) at earlier stages in order to get more effective treatments. However, there has been a lack of awareness surrounding health screening in Singapore. In 2022:

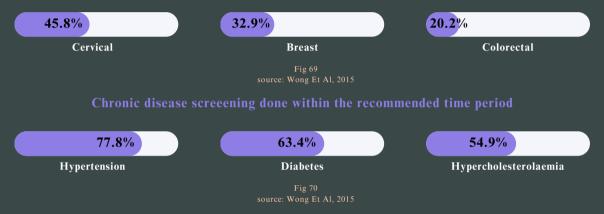
Scheduled a health screening in the last 12 months



source: Preventive Health Survey, 2022

While more individuals are getting chronic disease screening, much lesser people are attending cancer screening within the recommended time period.

Cancer screeening done within the recommended time period



Economic Accessibility

However, in terms of economic accessibility, Singaporeans and Permenent Residents (PR) are entitled to healthcare benefits such as Medicare and MediShield Life for subsidised cost of a substantial portion of their medical bills (albeit lower for PR) in public hospitals. This lessens the financial burden on them especially since healthcare treatments can cost a huge sum, be it surgury cost or cost of residing in hospital.

Type of Treatment	Unsubsidised Cost	Subsidised Cost
Heart Bypass	\$38,251	\$8,312
Stroke	\$7,804	\$2,601
Fig 71		

MediShield Life also subsidises B2/C class wards (typically 5-9 bedder) to cater to the lowerincome individuals. This ensures that healthcare is afforable and accessible to the masses and even low income individuals can reside in the hospital for optimum recovery.

Quality

According to the Bloomberg Health-Efficiency Index, Singapore was ranked from second to first for having the most efficient healthcare system in the COVID-19 era.

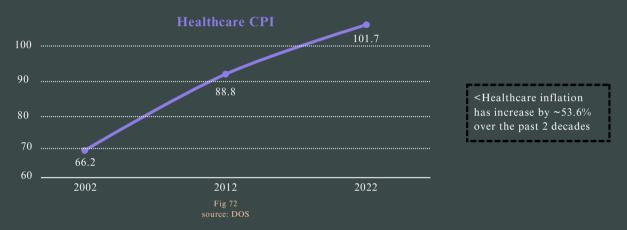
Advancement of medical development in Singapore has led to:

- Previous health conditions being treated, which were previously untreatable.
- Older procedures being replaced with more effective, albeit costlier, treatment options.
- Early detection and diagnosis of diseases, which allows for closer monitoring, treatments, and follow-ups. Thus, leading to increased healthcare utilization.

Potential causes of lack of rights to physical healthcare

• Increasing cost of healthcare treatment

Healthcare cost has increased by a substantial amount over the past few years, which may potentially make it unaffordable for the lower income individuals.



While it is true that there are many healthcare subsidies (MediSave) and medical insurance (MediShield Life), premiums for the insurance has been on the rise:

Age Next Birthday	Old Annual Premium	New Annual Premium	Increase in %
21-30	195	250	28.2%
31-40	310	390	25.8%
41-50	435	525	20.7%
51-60	630	800	27.0%
61-65	755	1020	35.1%
66-70	815	1100	35.0%
71-73	885	1195	35.0
74-75	975	1320	35.4

MediShield Life Premium update as of 1 Mar 2021

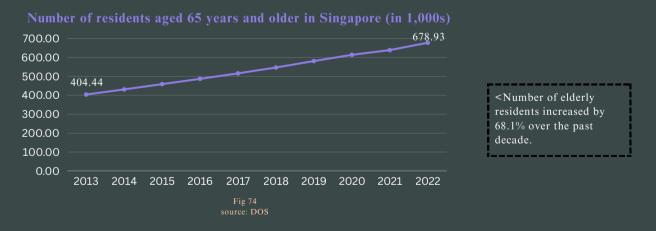
76-78	1130	1530	35.4
79-80	1175	1590	35.3%
81-83	1250	1675	34.0%
84-85	1430	1935	35.3%
86-88	1500	2025	35.0%
89-90	1500	2025	35.0%
>90	1530	2025	34.3%
Eia 73			

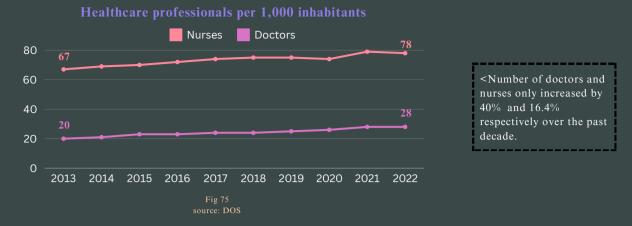
Fig 73 source: MOH

Whilst acknowledging the many forms of premium subsidies provided, especially for the low income households (up to 50%), they still have to pay more than they did a decade ago, after taking into account of inflation. Hence, with healthcare prices projected to increase due to a rapidly aging population, the increase in cost of healthcare could potentially pose a problem in the future.

• Potential shortage of healthcare staff due to ageing population

With increasing prevalence of an ageing population in our society, the likelihood of more elderly falling ill increases. In 2020, it has risen to about 1 in 6. According to PM Lee Hsien Loong, by 2030, another 10 years later, it would be almost 1 in 4 Singaporeans over 65.

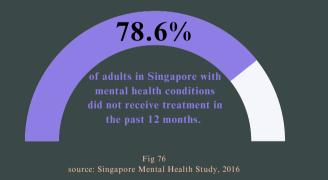




As shown above, the increase healthcare professionals has risen at an unproportionally lower rate than that of the increase in elderly. While mentioned previously regarding a large increase in projected elderly patients in 2030; without any actions taken to increase the number of healthcare professionals in Singapore, the shortage of manpower in the healthcare industry would eventually result in a manpower crunch, eventually leading to lower accessibility such as longer waiting time for patient. Hence, this compromises the rights to healthcare of individuals in Singapore.

Demographic of accessibility to mental healthcare services

• General population



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Quality

In terms of quality of mental healthcare, more can be desired as mental healthcare is still largely unestablished in Singapore.



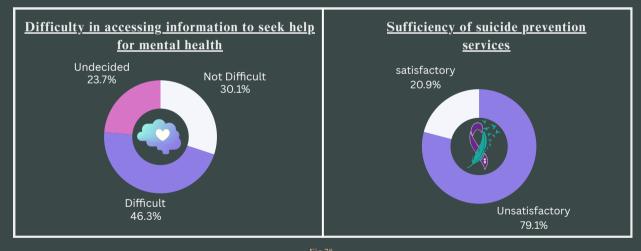
Standard of mental healthcare

Fig 77 source: SG Mental Health Matters

As shown above, for both public and private mental healthcare, less than half deem the standards as satisfactory (47.4% in public and 25.7% in private mental healthcare) and more should be done to improve its quality.

Quantity

In terms of quantity of mental healthcare services, the datas also suggests likewise:



Quantity of mental healthcare services

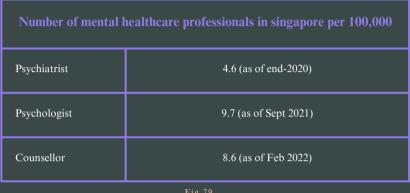
With only 30.1% believing that it is not difficult to access information to seek help for mental health and only 20.9% believing that there is sufficient suicide prevention services, this indicates that quantity of services offered is very undesirable and more should be done to improve it.

In general, mental healhcare is a very unexplored area in Singapore and more should be done to increase rights to mental healthcare.

Causes of lack of rights to mental healthcare

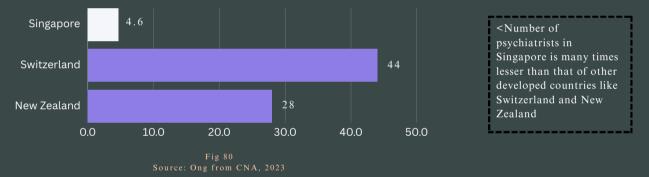
• Shortage of mental health professionals

In Singapore, there is a shortage of supply of mental healthcare professional available for the surging demand of mental healthcare services for the masses.





Number of psychiatrists per 100,000 population



Longer waiting time

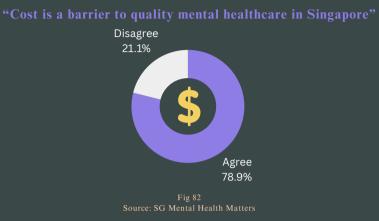
As a result, this leads to a longer waiting time for patients seeking treatment, hence reducing its effectiveness and causing more mentally-illed individuals to be detered from seeking treatment.

Median waiting time for a new subsidised appointment at public hospitals		
Psychiatrist	34 Days	
Psychologist	32 Days	

Fig 81 Source: MOH, 2020

High cost of treatment

A large demand and low supply of mental healthcare services naturally pushes price of treatment up, making it almost unsustainable to afford the services over a long period of time. This can be evident from the following survey conducted on 561 respondents:



Via public healthcare system, the cost of a subsidised first consultation is around S\$30 - S\$60 per session. While governmental healthcare schemes such as MediSave 500/700 scheme can relieve the financial burden of the cost of treatments for anxiety, major depressive, schizophrenia and bipolar disorder with a withdrawal limit capped at S\$700 per year, individuals themselves still has to fork out a substantial amount in order to fully recover.

According to APA (American Psychological Association) Div 12:

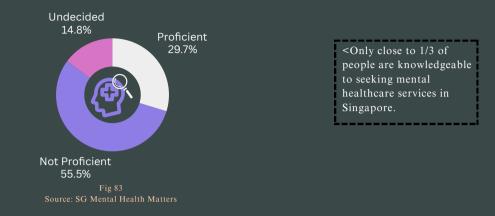
- 1. Recent research indicates that on average 15 to 20 sessions are required for 50% of patients to recover as indicated by self-reported symptom measures.
- 2. In practice, patients and therapists sometimes prefer to continue treatment over longer periods (e.g., 20 to 30 sessions over six months), to achieve more complete symptom remission and to feel confident in the skills needed to maintain treatment gains.
- 3. Clinical research evidence suggests that people with co-occurring conditions or certain personality difficulties may require longer treatment (e.g., 12-18 months) for therapy to be effective.

Assuming an average of 25 sessions with S\$45 per session, this translates to S\$1,125. Furthermore, this cost is excluding psychiatric medications, which can cost upwards of S\$100/month for some antidepressants.

As such, this can render many Singaporeans, especially young people and those from lowerincome groups to become unable to bear such a financial burden over the long run.

• Still lacking in awareness to mental health services

Whilst there has been advancement in the awareness of mental health in Singapore, majority still lack the knowledge of seeking subsidised mental health services.



Knowledge of seeking subsidised mental health services in Singapore

Without proficient knowledge on subsidised mental health services means individuals in Singapore do not know the true accessibility to relatively more afforable mental treatment cost with subsidy. This can deter many individuals in Singapore, especially the low-income, from seeking treatment due to the large arising cost as mentioned previously.

Effect of lack of rights to healthcare

Poor health excarbated

The inability to access adequate forms of healthcare treatment causes individuals with poor health to be delayed of their treatment of illness. This prevents them from being treated at the most effective and optimum time, hence worsening their condition and increases the duration of illness.

Consequential effects on poverty

• Social exclusion of these individuals

Many studies have shown that a lack of social connection is a determining factor of social isolation and individuals with poor health tend to have weaker social connectedness (Lim, 2015). This is more prevalent towards individuals with mental health illness.

Mental Health

Frequently, mental health challenges result in a deprivation of dignity and self-determination, involving instances of compulsory treatment, confinement, and neglect of an individual's legal capacity to exercise decision-making. This can ultimately result in social exclusion of these individuals and thereby worsening mental and physical health.

Additional effects to poverty from a lack of social connectedness

Having a strong social connectedness is associated with increased longevity, strengthening of ones' immune system, faster recovery from disease and, hence, a lengthening of one's life (Lim, 2015). Individuals with poor health are then more susceptible to worse health from the after effect of poor social connectedness, which is in turn, derived from their initial poor health. As a result, this plunges them further into the trenches of poverty.

In addition, the ability to relate warmly to others help the forming of unions and increases opportunities of receiving guidance (Baumeister & Leary, 1995). Individuals with poor health could thus potentially loss out in opportunities to better themselves and increase their economic and social value to society.

• Low productivity of these individuals

Productivity is vital ,especially for low-income individuals, as increased productivity is one of the fastest way for them to achieve high wages and hence, climb up the social ladder. However, individuals with poor health are largely deprieved of that because long duration of illness (be it mental or physical) leads to increasing rates of absenteeism and presenteeism.

CLOSING THOUGHTS (LACK OF RIGHTS TO ADEQUATE HEALTHCARE)

In conclusion, the long term prospect of sufficient healthcare professionals are gloomy due to aging population and increasing number of mentally illed individuals. This shortage is the potential root cause for increasing healthcare costs if not dealt with appropriately, thus further aggravating the accessibility and hence rights to healthcare.

Despite governmental efforts to relieve financial burden in healthcare for individuals such as MediShield Life and MediSave, precautions still have to be made, especially towards addressing the increasing demand for healthcare services via increasing the supply of healthcare professionals in Singapore.

LACK OF RIGHTS TO EDUCATION

Lack of rights to education refers to the situation where individuals or communities are unable to obtain or participate in quality educational opportunities. While Singapore has been known to having one of the best educational system in the world, and with "education touted as the great equalizer (Teo, 2018)", not everyone has had equal opportunities to participate fully due to financial instability. This is especially so for many children from low-income family, where the playing field is anything but even. With greater odds stacked against them to succeed, many fail and further entrenches themselves into the vicious cycle of poverty.

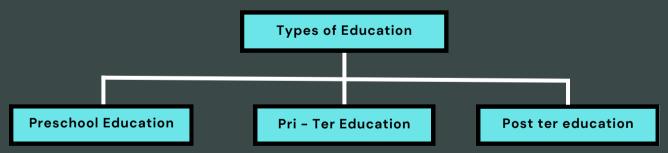
Importance of Education in relation to poverty

Education serves as the most important and easiest way to achieve upwards mobility in the world. This is because higher levels of education correlates to higher wages and stability in the workforce. Higher wages propel individual/household income to higher echelons of SES, hence allowing them to solve financial issues and even poverty. As mentioned by our Prime Minister Lee Hsien Loong:

"...work is better than any social safety net we can craft and it is better than any social transfer that we can arrange... The best thing is you have a job; you have assurance for the future." (Lee, 2014)

Intergenerational poverty and education is highly related. Individuals living in poverty tend to remain impoverished and experience limited educational attainment as poverty and illiteracy are passed down from generation to generation (Levine & Nidiffer, 1996; Mortenson, 1998; U.S. Department of Commerce, 1999). It is therefore important for those in poverty to have adequate and equal access to education so as to increase their literacy rates and educational success (Beegle, 2003) and ultimately eradicate poverty.

Stakeholders



For each stakeholders, we will be assessing the educational accessibility and its effectiveness in aiding those in poverty.

Note:

In this chapter, explaination of poverty in education will be explained in the perspective of inequality and inequity of individuals. It is important to note that rising inequality and inequity does not necessarily denote the existence of poverty. However, the combination of them with evidence of poverty indicates that the poor are being left further behind.

PRESCHOOL EDUCATION/ EARLY CHILDHOOD CARE EDUCATION

ECCE, also known as preschool education, refers to comprehensive care, development and education of young children, commonly from birth year to the age of 8. It emphasizes on providing a nurturing and supportive environment for children's overall growth before primary education. This can be in the form of attending preschool (i.e. child care and kindergarten) or self taught by family members themselves.

Importance of ECCE

While ECCE can boost cognitive skills for children, it is the intangible developments such as social skills and emotional empathy that are truly valuable in their future development. Hence, It is important to recognize that early childhood phase as not simply a preparation for primary schooling, but an essential public good for children and society as a whole (Ang, 2012).

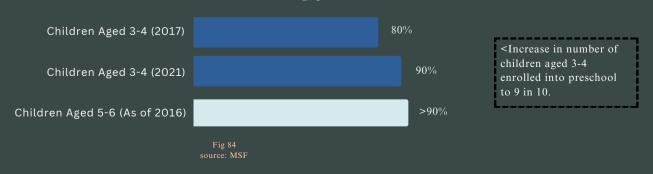
As supported by Prime Minister Lee Hsien Loong in his 2017 National Day Rally:

"We want every child to go to a good preschool so that all children, regardless of family background, have the best possible start in life. We must do this because every child counts and if we get this right, we will foster social mobility and sustain a fair and just society. So it is a practical thing that we are doing but it is a strategic goal which we are aiming for." (Lee, 2017)

Demographic of preschool participation rate

Preschool serves as the most common platform for children to have access to a proven form of holistic development, through qualified teaching professionals that can instill and cultivate vital foundations (i.e. EF skills, social-emotional development, knowledge etc.) for future academic success and overall wellbeing.

• General population - Overall increase and same as national average



Preschool Enrollment Rate of Singapore Citizen Children

• Low-income/SES population - participation rate of some fell below national average

Preschool Enrollment rate of Children residing in public rental flat



Whilst preschoolers who are Singapore citizen children aged 5-6 residing in public rental flats have comparable participation rate as the national average, Singapore fell way below the national average for those aged 3-4.

We can deduce that even though improvements are made over the years in terms of making preschool affordable for society in Singapore, there are still some of those living in poverty being left out.

Causes of poor accessibility to ECCE

• Inability for the parents living in poverty to provide adequate ECCE for their children

Families with low socio-economic status (SES), could find it particularly challenging to provide adequate care and enrichment for children due to lack of sufficient resources entailed (Barbarin et al., 2008; Boyce et al., 2010; Ermisch, 2008; Feinstein et al., 2007, 2008; Hauser-Cram et al., 2003).

Inavailability of parents

In low income households, parents would have to take up odd jobs and/or juggle multiple jobs in order to provide for the family. As such, this leaves little to no time for them to interact and educate their children.

Children could also be living under unfavourable circumstance, such as being raised by single parents, parent being incarcerated and even suffering from mental health disorder. Parents will then be absent for their children.

Low parental education

With low educational levels themselves, they are unable to impart important values and basic language skills to their children.

Additionally, low parental education correlates with lower income as they take on lower skill jobs. Despite the various subsidies provided by the government, with a lower household income, they may choose not to enroll their children into preschool and choose to save the money for what they deem as other more important needs.

• Not enrolling into preschool

Since "poor" is a relative term; and adding onto the fact that majority of children are now enrolled into preschool (as shown in fig. 84), those who are not enrolled would lose out in learning important ECCE that is taught by qualified teachers.

Effects of poor ECCE

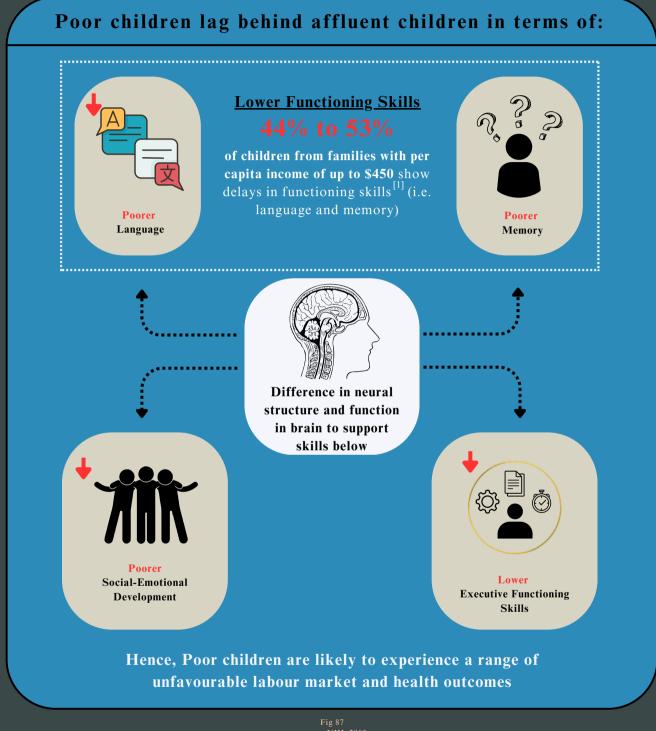


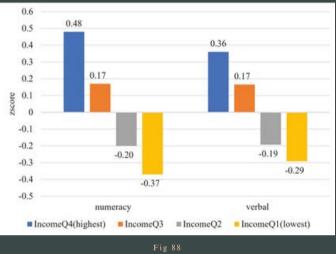
Fig 87 source: NIH, 2019 [1] Annals Academy of Medicine, 2015

One of the fundamental reason behind this result is due to poor children's lack of access to adequate Early Childhood Care Education services, one that affluent children easily gain access to, be it in the form of preschool or even growing up in a highly educated household.

Having access to quality ECCE can have long lasting benefits on children's comprehensive development and capacity for learning. This is even more prevalent for those developing in disadvantaged backgrounds (Lim & Sirene, 2021), who lacks sufficient resources and opportunities to excel in the first place.

• Lower Functioning Skills (poorer literacy rates)

Access to quality ECCE for the child is commonly associated with higher literacy rates as they tend to perform better in assessments.



Achievement of Children aged 4-6 by Income Quartile

source: Singapore Longitudinal Early Development Study, 2021

A higher z-score correlates to better results scored for the test. The chart above shows that the family income has direct impact on the both child's numeracy and verbal scores. Lower income parents tend to have lower education levels and are poorer parental educators to their children. Hence, their child has access to poorer ECCE and literacy rates. Consequently, children cannot assimilate adequately into future forms of education and fall behind in society in terms of educational background, ultimately succumbing to low paying job and continue to live in poverty.

Poorer social emotional development

Emotionally, preschoolers are reckless and tend to take anything they desire and totally ignore things they do not want to associate with as they are unable to fully take into considerations the cause and effects of their actions (Donna, 2019). As they approach the later ages of their preschool, they start to be more aware of others feelings with the help of adults.

Socially, children age 3-5 also start to be more willing to make new friends by escaping their isolated play to playing in groups with other friends.

Therefore, if they are unable to gain quality ECCE during this important period, such as preschool education where teachers can optimize their development, both socially (by interacting with other children) and emotionally (by educating them the effects of their actions to others); these children can potentially isolate themselves socially and emotionally.

• Lower Executive Functioning Skills

Executive Function, EF in short, refers to a comprehensive set of higher-order cognitive skills that allow individuals to exert control over basic cognitive processing skills to flexibly adapt to dynamic environmental demands (Kim Ahmed Morrison, 2020). EF is distinctive of intelligence, as it has less to do with possessing knowledge, but rather about applying that knowledge into practice and being able to reason (Zelazo et al., 2017).



A place to grow EF skills is in preschool, where the educational pedagogy, including their teaching methods and learning activities, are specifically tailored for that. Hence, with lower income parents unable to provide adequate ECCE (such as accessibility to preschool) for their children, they are unable to hone their EF skills, which are life skills that are there to stay for their subsequent future.

Consequential effect on poverty - Aggravates inequity and inequality

Without a strong foundation on ECCE for low income children, they would be lagging behind compared to children who attended preschool; not just in terms of cognitive abilities but social capabilities as well (AsiaOne, 2019). Consequentially, this exacerbates inequity as both parties starts off on different skill levels, academic and social inequality will subsequently snowball thereafter (Lien Foundation, 2019). This makes it increasingly harder for them to succeed and more often than not, this marginalizes their future and potentially leads to generational poverty

PRI - TER EDUCATION

Importance

This period of education is arguably the most important for those to living in poverty. Education, being the primary social leveler in Singapore, heavily influences their ability to climb up the social ladder depending on how far their academic achievements can take them towards.

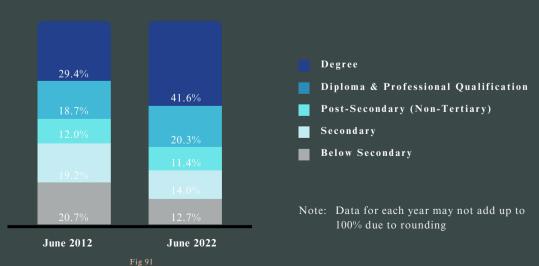


Median Monthly Salary based on educational qualifications

As such, it is imperative for children living in poverty to be adequately equipped with educational resources so as to boost their chances of achieving higher academic success. This would then allow them to obtain higher salary in the future and potential uplift their family and their future generations from poverty.

Demographic of accessibility to pri-ter education

• General Population



Resident Labour Force by Highest Qualification Attained

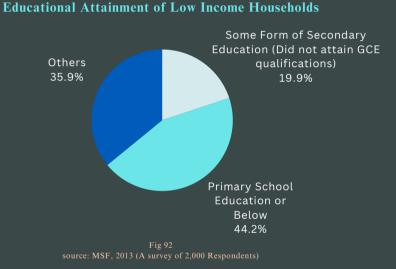
source: Comprehensive Labour Force Survey, Manpower Research & Statistics Department, MOM

As shown, there has been a rise in education level as degree holders now takes up almost half of the Singapore population. This indicates that the accessibility to adequate education from primary to tertiary level has overall increased.

Note

It is important to understand that the aspiration of allowing every individual to obtain the higher echalons of qualification possible (i.e. degree & diploma) can lead to dangerous social consequences. This is because this oversaturation renders their qualification useless with respect to the demand and supply of high skilled jobs and hence unable to find a suitable job equivalent to their degrees.

• Low-Income Population



While data might be outdated (2013), it can still be a relative estimate of the disaparity in educational attainment between the general population and the low income in Singapore, though not as severe.

<u>Causes of poor accessibility to pri-ter education for the low</u> <u>income/SES household</u>

According to OECD, Singapore students coming from poorer families are more than 4 times more likely to be low performers, compared to more affluent peers as poorer families tend to have lower accessibility to educational resources. This is due to inequity due to social status and inequality due to wealth. Consequentially, the rest with more educational resources would be able to accelerate further with all the various forms of educational investments while students living in poverty continually hover at the back. This hinders their ability to improve their socio-economic status and aggravates poverty.

• Inequality due to wealth - Shadow Education Industry

Boom of tuition industry due to increased competitiveness in Singapore's educational system

The heavy investment in development of human capital by the Singapore government over the past few decades has reaped its rewards: Singapore producing one of the most academically intelligent individuals among the world. However, this reputation has come at a cost of increased pressure for students to excel in the stressful educational system. In order to gain an edge, parents choose to enroll their child to take on more lessons outside of school curriculum, giving rise to the boom of tuition industry.

In recent years, the tuition industry has been steadily increasing and becoming a common part of every students life as shown below:

10.00 8.37 8.00 5.61 6.00 <Expenditure increase by ~49% 4.00 from 2013 - 2022 0.00 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 **Tuition enrollment numbers** 52%of parents see tuition as a means to help their child keep up with 7 in 10 enrolled their children in extra classes in 2015 (Numbers predicted to rise based on increased others

Private consumption expenditure on education in Singapore (in billion Singapore dollars)

Fig 94 source: The Straits Times

expenditure on private education shown above)

Increased popularity in tuition set to only detriment the poor



Average monthly household expenditure on private tuition and other educational courses by income quintile

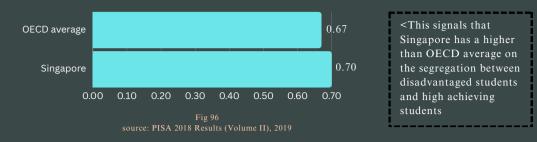
As mentioned by Kelvin Seah, a senior economics lecturer at the National University of Singapore (NUS); given that there is a wide range of tutors in Singapore, better quality tutors tend to charge more and wealthier households (such as those from the 81st - 100th income quintile) would be able to better afford this "premium" quality tutors, thus placing their child in a more advantages position to succeed. Whereas for the poor, they can only afford "lower" quality tutors (most cannot even afford tuition).

Therefore, this uneven playing field causes the poor to always be at a permanent disadvantage due to lack of adequate access to quality education for children who require more academic help outside of school. Their chances of academic success and hence, ability to climb up the socio-economic ladder, to be dampened. They will then continue to live in poverty due to inequality.

• Inequity due to social status - Segregation of the poor students from the rich

The isolation index of **disadvantaged students** from high-achieving students is used to determine the segregation of the poor and the rich. It measures whether socio-economically disadvantaged students are concentrated in schools distinct from those that enroll high-achieving students and the strength of association between SES with performance. The index is related to the likelihood that a representative disadvantaged student attends a school that enrolls high-achieving students. It ranges from 0 to 1, with 0 corresponding to no segregation and 1 to full segregation.

"Disadvantaged students" refers to students in the lowest 25% socio-economic status of the country while "Advantage students" refers to students in the highest 25% socio-economic status of the country.

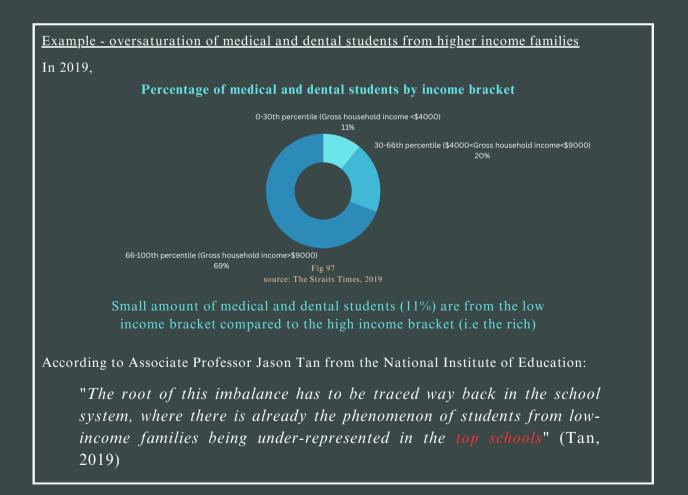


Isolation of disadvantaged students from high-achieving students in reading

The rich's continual success and the poor's continual demise

The socio-economic status of parents can vastly affect their child's entry into top-tier schools (aka elite schools), which provides relatively higher resources and opportunities for their child to advance even higher into the upper-echelons of society, while the poor continue to stay in the back.

Some of the attributes constituting to a top tier/elite school includes good academic track record, good reputation, and a high PSLE/O-levels cut-off point. (Ong & Cheung, 2016)



Effects - Disadvantaged students lose out

With all of the factors stated above, students living in poverty loses out in terms of academic competency and uncertainty of their future as shown by evidence stated below:

• Academic competency

	OECD average	Singapore
Percentage of disadvantaged students who are academically resilient [*] (%)	11	10

Academic resilience of disadvantaged students

*Academically resilient students are disadvantaged students who scored in the top quarter of performance in reading amongst students in their own country.

Fig 98 source: OECD, PISA 2019

Differences according to Economic, Social and Cultural Status index

	OECD average	Singapore	
Difference in reading performance between students in the top quarter and students in the bottom quarter of the economic, social and cultural status index (ESCS)	89	104	Singapore has a higher than OECD average score in all 3 categories mentioned and a lower than average percentage of academically resilient
Increased likelihood of students in the bottom quarter of ESCS scoring below Level 2 in reading, relative to non-disadvantaged students (3 other quarters of ESCS)	2.70	3.14	disadvantaged students, suggesting that parental background plays a vital role in influencing their child's academic results. (Ho & Tan, 2021)
Increased likelihood of students in the bottom quarter of ESCS scoring below Level 2 in reading, relative to advantaged students (top quarter of ESCS)	5.12	5.46	۱ <u>ــــ</u> ا

ource: OECD Education GPS, Ho & Tan Challenges to social mobility

Lower academic competency for the disadvantaged students hinders their chances of enrollment into higher forms of education levels (i.e. diploma and/or degree).

• Uncertainty of future

	OECD average	Singapore
Students who have no clear idea about their future job among disadvantaged students (%)	24.3	20.9
Students who have no clear idea about their future job among advantaged students (%)	22.8	16.8

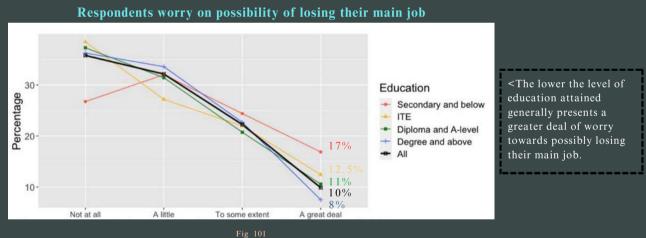
Fear of Failure and Concerns about Future Job

<While percentage of students who have no clear idea about their future job among disadvantaged and advantaged students are lower than OECD average, number of advantaged student is significantly lower than the OECD average compared to that of the disadvantaged students. This suggest that advantaged students may already have a path laid out for them. (Ho & Tan, 2021)

Fig 100

source: OECD Education GPS, Ho & Tan Challenges to social mobility

This uncertainty has implications to disadvantaged students future as well, especially if they are unable to graduate from higher forms of education. This puts their job security of these students in the future at stake:



ource: In-work poverty and the challenges of getting by among the young: wave 1 report, 2022

<u>Consequential effect on poverty - Educational mobility</u> <u>squandered</u>

With all pointers taken into consideration, not only does disadvantaged students lose out in the short term in the form of lower academic grades, it may also have spill-over effects to the long term if they are unable to advance into higher forms of education. The long term loss will be in the form of job uncertainty and insecurity, and lower starting pay. This ultimately squanders educational mobility and can potentially put them in an endless cycle of poverty as their future generations will receive the same forms of unequal treatment.

POST TER EDUCATION (JOB RESKILLING & UPSKILLING)

<u>Importance</u>

The 21st century world is becoming an increasingly Volatile, Uncertain, Complex and Ambiguous (VUCA), whereby the need to invest in human capital has been more and more prevalent. According to an estimate by the World Economic Forum in 2021, half of employees around the world need some reskilling by 2025 to remain relevant in a world of increasing technological adoption.

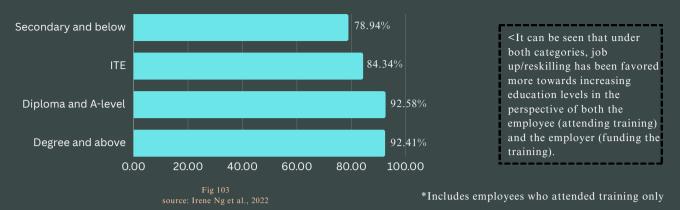
Without the participation of every individual to continue learning and diversifying their own sets of skills, this can result in some of them being forced out of jobs as some industries are rendered obsolete. Structural unemployment would occur, potentially propelling some to experience situational poverty without any source of income.

Most low skilled workers tend to live in poverty

Low skilled workers do not have sufficient skills and knowledge to take on higher skilled jobs, such as those in the STEM industry, as they lack educational requirement. In addition, job mobility for the low skilled is low (more will be explained in the subsequent pages). As such, they are unable to command higher wages and their low skilled jobs continue to reap them low wages. With persisting inflation that leads to increase in cost of expenses that outpaces their wage growth, most low skilled workers will not be able to keep up, causing them to experience poverty,

Demographic of accessibility to job reskilling/upskilling





Proportions whose training is funded by employer in percentage*

Cause of poor accessibility to job reskilling/upskilling

• Inequality of job up/reskilling between skilled and less-skilled workers

As shown in fig. 102 and fig. 103, the results are due to conflicting interest between the government and employers. In theory, promoting reskilling and upskilling for the low skilled workers would help them command higher wages and eventually bring them out of poverty (which is ideal for the government to act on). However, this is not the case. The value add of upskilling for them is generally low unless they learn skills relevant for high skilled workers, which may not be relevant skills that employers require them to possess.

After taking this into consideration, it can be determined that the provision of lifelong learning is markedly differentiated for the skilled and unskilled; provision for the latter is less favorable than that for the former and low skilled workers are primarily supported to engage in training for other low skilled jobs. (Lee & Morris, 2016)

Effects on poverty

• Job mobility for the less-skilled hindered

The inequality of job re/upskilling between the skilled and less-skilled workers ultimately results in the less-skilled being disadvantaged throughout their working career, with limited opportunity for advancement. Whilst most low-skilled workers would like to attend these trainings (as shown in fig. 104), employers may not find it relevant to their job scope and hence not fund the training and may even forbid them from attending.

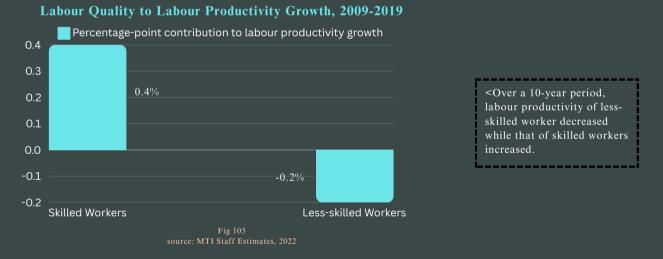
Percentage of Singaporeans who want learning & Development (L&D) opportunities in 2021



In the end, the claim that upskilling will result in better jobs and social mobility is more likely if the knowledge economy requires less unskilled workers and more high-skilled workers, and that the middle income jobs grow. (Lee & Morris, 2016)

As such, less-skilled workers, who in itself consist of mainly low-income individuals, lose out in opportunities to learn new skills or more skills relevant to their industry of work. This forbids them to climbing up the socio-economic and income ladder, further preventing them to break out of this vicious cycle of poverty.

• Less-skilled suffer in terms of labour productivity



With a larger proportion of skilled workers receiving training than less-skilled workers; and a combination of other factors, lead to the disparity of labour productivity between them. With a decrease in productivity of the less-skilled workers, their wage increase would be lower compared to their counterpart, resulting in worsening income equality and poverty.

CLOSING THOUGHTS (LACK OF ASSESS TO EDUCATION)

In this section, I have shown how those living in poverty can lose out in terms of educational and job opportunities for the different stakeholders involved. Whilst acknowledging that intergenerational mobility is still increasing, we do have to caution the flaws our current education system and its greater impact to every individual's future career.

Increasing prevalence of hereditary meritocracy

Singapore has always preached their education system as a meritocratic since its inception. However, in recent decades and according to the pointers and statistics in this section, it is as though we are unconsciously shifting towards "hereditary meritocracy", whereby high income earners are in the prime position to allow their children to succeed instead of relying on the abilities and efforts of the children themselves (an oxymoron, considering meritocracy means the latter). Wealth and poverty are likely to be passed down to the next generation (Lee & Morris, 2016), running counter to government initiatives.

SOCIAL EXCLUSION

Poverty is not just about the lack of financial wellbeing and material deprivation. It is also about the stress, the sense of being judged and blamed, and the absence of control over one's own life. (Teo, 2018) This stigma of poverty is pervasive, and it compounds the material hardships by adding layers of shame and social exclusion (Teo, 2018), further derailing individuals effort in overcoming poverty.

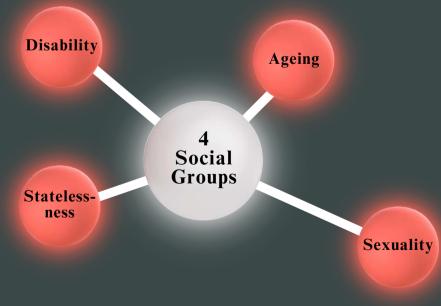
According to the European Foundation, social exclusion refers to the process through which individuals or groups are wholly or partially excluded from full participation in the society within which they live. Every country, regardless of wealth and development, are bound to be affected by this problem (UN, 2010) due to the widespread nature of marginalized groups in each country. Furthermore, exclusion manifests explicitly through social prejudice and discrimination, often persisting even when individuals or groups attain a higher economic status (UN, 2010).

Importance of tackling social exclusion

Tackling exclusion and fostering social cohesion are essential in poverty reduction and is an equally important priority with respect to the physical dimensions of poverty. Instead of melting away with the elimination of poverty, it actually tends to limit the effectiveness of poverty reduction efforts in the first place (UN, 2010). This is because individuals facing social exclusion tend to not only lose out in terms of opportunities for the expansion of their social circle, but also lose out in terms of access to material well-being, thereby pushing them further into the depths of poverty. As a result, social inclusion is a question of rights—both individual and group rights—that every individual in society is entitled to since no individual should be treated worse or better than another.

Subcategorising marginized groups facing social exclusion

Social exclusion is endemic and assumes many other forms. According to the UN, social exclusion prevails and demand special emphasis in these 4 major spheres:





In the subsequent pointers, I will be elaborating on each of the spheres in relation to Singapore and accessing the state and degree of exclusion of them respectively.

Persons With Disability (PwD)

According to SG Enable, PwDs refers to those whose ability to attain employment and recreation; retain and progress in education and training institutes, are largely at a disadvantage as compared to a regular person due to physical, sensory and intellectual disabilities as well as autism. PwDs form a substantial group in our population:

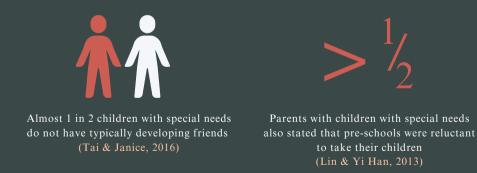
Age Class	Percentage of Population
Student Population	2.1%
18 - 49 Years Old	3.4%
Over 50 Years Old	13.3%
Fig 107	

Demographic of PwDs in Singapore

• Institutional Discrimination of PwDs

Generally in Singapore, 62% of PwDs surveyed feel excluded and have insufficient opportunities to play apart or maximize their potential in the society (Varma & Ankita, 2016). Additionally, while Singaporeans are accepting towards the idea of an inclusive society, disability itself is still met with uncertainty (NVPC, 2020). Based on a survey conducted by AWARE in 2022, persons with disabilities experience discrimination at a significantly higher rate of 78% compared to persons without disabilities who have experienced discrimination (50%).

People with PwDs as young as being a student also cannot escape the wraith of being stigmatized by mainstream society:



This inequality of treatment thereby limits their opportunities and resources (i.e. employment and education), contributing to the perpetuation of economic disadvantages across generations.

Fig 107 Source: MOF, 201



• Improvement in Employment Opportunities

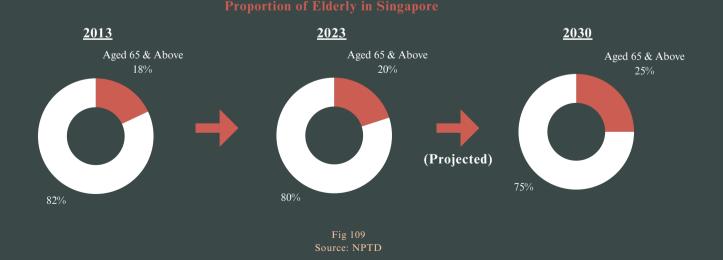
Fig 108 Source: Comprehensive Labour Force Survey, manpower research & statistics department, mom

Although improvement is small, it is still an indication that employing PwDs is gaining acceptance in Singapore.

In addition, between 2018 - 2021, the nominal median gross monthly income from work (including employer CPF) of full-time employed resident persons with disabilities aged 15 - 64 only rose by 4.0% from \$2,630 to \$2,735, 2.7% after adjusting for inflation (MSF, 2022). This is inline with the median increase in real income for each member of the household in Singapore of 2.7% in 2022 (Chew H M, 2023).

Ageing Population

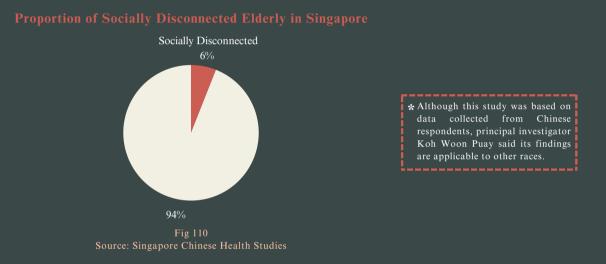
Ageing population has been a concerning topic over the past decade in the world, especially for Singapore. With a consistent decrease in birth rate, the proportion of elderlies are set to increase as shown below:



• Social Isolation of the Elderly

Social isolation reflects the extent of deprivation in social connections and lack of social engagement in society (Nicholson, 2009). This is becoming an increasingly prevalent global public health issue as it results in a wide array of adverse health outcomes, ranging from physical and psychological conditions (e.g. Alzheimer's disease, schizophrenia and depression, demantia etc.) (Chou et al., 2011) & (Heinrich LM et al., 2006) to mortality (Laugesen K et al., 2018).

By a study conducted by the Singapore Chinese Health Study with the participation of 16,943 chinese elderly^{*}, social isolation of elderly is measured via how socially disconnected they are from society (Koh et al., 2021). This includes measurements that emphasize quality of social interactions over quantity, and considered gatherings beyond the family network in order to be considered socially disconnected. Results shows that:



In addition, it was also noted in the same study that lower education level, cognitive impairment, poor self-rated health, and depression were independently associated with social disconnection. This further supports my claim that all the physical factors of poverty are intertwined with one another and that poverty must be tackled collectively with all the factors in mind.

• Not a concerning issue now compared to global average, but advisable to monitor it

While there are varying methodolagy and definiton of social disconnection with reference to an international study conducted by the Center of Aging and Health, it was found that an estimated 7.7 million (24%) of community-dwelling older adults were socially isolated. (Thomas K. M. Cudjoe, 2018)

In comparison to the global average, we can conclude that Singapore has done a great job in maintaining a relatively low level of social isolation among the elderly population by ensuring most elderly received enough social support in the society.

However, it is important to keep in mind the increasing proportion of elderly in Singapore in the in the upcoming years (as mentioned previously). Hence, the proportion of socially isolated elderly is bound to rise and efforts in providing social support for elderly has to be maintained.



Source: Singapore Chinese Health Studies, Center of Aging and Health

<u>Sexuality - Gender</u>

Gender discrimination can be indirectly measured via the global gender gap index. It captures the magnitude and scope of gender-based disparities, in terms of access to resources and opportunities between the male and female gender. A score of 1 signifies absolute parity and a score of 0 signifies absolute imparity. With comparisons to the global scale, Singapore has done slightly above average with a ranking of 49th out of 146 countries in the world and 2nd in South East Asia (behind Philiphines).

Ranking	Country	Score
1	Iceland	0.912
2	Norway	0.879
16	Philiphines	0.791
49	Singapore	0.739
146	Afghanistan	0.405

Global Gender Gap Index

Fig 112 Source: World Economic Forum

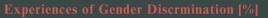
• Gender Discrimination

In an Asian country like Singapore, with deep rooted gender cultures, results have shown that while both discrimination of male and female exists, the frequency of occurance on females are much higher than that of the male counterpart:



Source: Singapore Chinese Chamber of Commerce and Industry

Specifically in workplace gender discrimination; discrimination in terms of customer interaction, career advancement opportunities, and wages all exists and faced by each gender of varying degree:





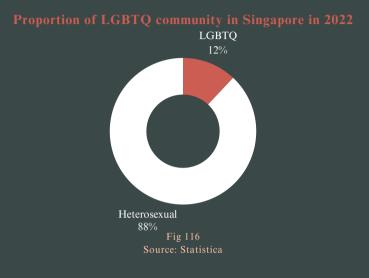
• Improvement in gender disparity

With reference to the global gender gap index, it can be seen that there has been an overall increase and improvement in gender disparity in Singapore over the past few years. This shows that efforts by the Singapore government has been put in place to prevent gender discrimination to improve gender equality.



<u>Sexuality - LGBTQ</u>

The LGBTQ are a community that has been under close scrutiny due to their controversial beliefs as opposed to the traditional values dictated by society in the past. This is especially the case for Singapore, an asian country known for its strict adhersion to these traditional beliefs. With a substantial proportion of LGBTQ community in Singapore as shown in fig. 116, they have been faced with countless forms of discrimination.



• Workplace Discrimination of the LGBTQ

In the workplace, instances of opportunities of the LGBTQ being denied and the negative perception of colleagues working with them are largely prevalent as shown in fig. 117.

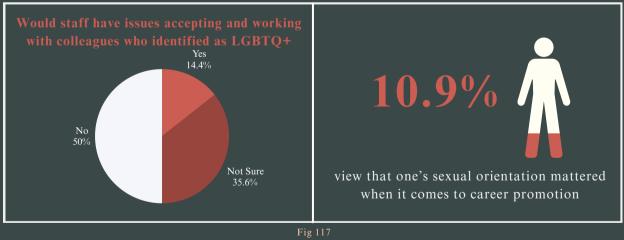


Fig 117 Source: Achieve Group, 2022

These discriminations spreads fear among the LGBTQ community in coming out due to the various negative effects imposed to their career, ultimately preventing them from expressing themselves. This goes against the fundamental human rights of the freedom of expression that all individuals should be in possesion of. Hence, this lesser representation and discrimination leads to a domino effect that causes them to be excluded from society.

• Increasing acceptance of the LGBTQ community

While discrimination against the LGBTQ community is still present, the instances have been decreasing due to their increasing acceptance by society. This can take place due to the collective efforts put in by companies and workers, and anti-discriminatory policies enforced by the government.



<u>Statelessness</u>

There are <u>1095</u> stateless people living in Singapore as of December 2020

Statelessness refers to individuals who are expelled from their home country and barred from the security of citizenship. Stateless individuals fall into three broad categories:

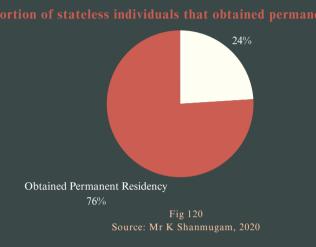
- 1. Singapore permanent residents (PRs) who have lost their foreign citizenship
- 2. Children born to foreign nationals who are not recognised in their home countries
- 3. People born in pre-independence Singapore who are unable to prove their country of birth
 - due to lack of bureaucracy or required documents from the sudden separation in 1965 between Singapore and Malaysia. (Png, 2020)

• Exclusion of civic life and the benefits of citizenship

Statelessness often denies individuals the right to participate in civic life, including voting and engaging in political processes. This exclusion from active citizenship marginalizes them from societal decision-making. Stateless people are also not entitled to government health or education subsidies, may have difficulty securing employment and may not buy or rent real estate as well.

• Large proportion still able to enjoy some form of sudsidies

76% of stateless individuals are still able to obtain permanent residency (PR) in Singapore. This means they are still able to enjoy various benefits accorded to PRs such as in healthcare, housing and education. While benefits are not high enough compared to those received by Singapore citizens, they are still able to relieve some form of financial burden from these stateless individuals and allow them to participate in society decision making in Singapore.



Effects of Social Exclusion on Poverty

Social exclusion omits certain people the same rights and opportunities as provided to others in their society. Due to who they are, certain groups cannot fulfil their potential, nor can they participate equally in society (DFID, 2005). As such, one key feature of social exclusion is the relative powerlessness of those excluded, and is dependent on the socio-political structure of their society that enables them to improve their material and non-material well-being (UN, 2010). If society is not able to conform to the needs of those socially excluded, this ultimately leads to poverty. According to the Department for International Development (DFID), social exclusion causes poverty in 2 main ways:

• Causes Deprivation

Social exclusion can result in material deprivation, emotional deprivation and deprivation of opportunities (DFID, 2005):

Material Deprivation	: makes them poor in terms of income, health and education due to denied access to resources, markets and public services
Emotional Deprivation	: as they distant themselves from their community due to perceived discrimination by the community on the excluded, it eventually shuts the excluded out of the life of their community
Deprivation of Opportunities	s: unable to improve their social economic status and escape poverty via their own efforts due to lack of opportunities presented to them. Hence, while the economy may grow and general income levels may rise, excluded people are likely to be left behind and remain in poverty. Poverty reduction policies often fail to reach them unless they are specifically designed to do so.

• Reduces Rate of Poverty Reduction of Society

Exclusion does not cause poverty through a simple sorting of those who are 'in' or 'out' and their ability to participate in society. Socially excluded groups often do participate but on unequal terms. The labour markets is a clear example of how exluded groups such as the disabled and sexuality are exploited and reinforces their disadvantaged position at the same time, where they are in no position to change any outcomes. (DFID, 2005)

Social exclusion also increases the level of economic inequality in society, which reduces the poverty-reducing impact of a given growth rate. (DFID, 2005)

CLOSING THOUGHTS (SOCIAL EXCLUSION)

Eradication of social exclusion is one of, if not, the most important focal point for poverty prevention, especially in a developed country such as Singapore, where material deprivation is not a main form of concern as compared to developing countries. For marginalised and excluded groups, individual efforts are insufficient and the only solution to overcome social discrimination is for their group to hold a collective agency in organization, representation, voice and identity (Narayan et al., 2009). If not, this will eventually lead to increased economic, social, and political exclusion and inequality.

RECOMENDATION: Adoption of a new model to measure poverty

With the definitions of each components of poverty properly defined, poverty is no longer narrowly defined to be due to poor financial wellbeing. We have found out that poverty in housing, education, health and social exclusion is much more prevalent in Singapore than the financial indicators suggests in the first chapter. Hence, in this chapter, we will be exploring the different indicators used in Singapore's current poverty measurement model, its flaws, and my suggested hypothetical framework of poverty measurement model that can better measure poverty in developed nations.

Singapore's existing poverty measurement model(s)

In Singapore, most of the indicators used by Department of Statistics Singapore are largely monetary in nature and measured via the use of **Proxy Means Test (PMT)** only. PMT measures poverty via the collection of verifiable and observable proxy indicators of household budget, along with data on demographics and welfare aggregates, and imputes households' welfare scores used to rank households based on needs and thereby establish a repository of potentially eligible households from which social assistance programs can draw beneficiaries according to the respective programs' defined PMT score cut-off points and eligibility criteria. This can be seen below:

Indicator	Measurements	Advantage	Disadvantage	
Key Household Income Trends	Measures various aspects of the income distribution and economic well-being of resident employed households in Singapore.	Ease of accessing and updated yearly.	• Monetary	Omits typically 9 - 10% of households which do not have an employed member, a significant share, particularly of poorer households.
HES (Housing Expenditure Survey)	Collects detailed information on households' expenditure and data on demographic and socio-economic characteristics as well as ownership of consumer durables.	More comprehensive than the annual Key Household Income Trends report, which only includes employed households.	 Monetary measures of poverty Do not account for basic expenditures necessary for social mobility such as human capital investments, and information and communications technology Do not account for social and physical factors such as social exclusion and access to adequate housing etc. 	• Lack of yearly data (take place every 5 years)
AHEBN (Average Household Expenditure of Basic Needs)	 An estimate of the average monthly expenditure that households spend on essential needs such as food, clothing and shelter Data compiled primarily from HES data 	Serves as a benchmark and an official measurement of deprivation and absolute poverty in Singapore		 AHEBN is not easily available in the public domain A very conservative measure of hardship or absolute poverty Assumes that the medical, transportation and educational costs approximates ~25% of the cost of food, clothing and shelter combined Fails to account for the fact that the cost of the former tends to rise faster than that of food, clothing and shelter

Fig 121 source: Donaldson et al, 2013

• Downsides of PMT as a form of measurement alone

Whilst majority of individuals experiencing poverty have some form of financial problem, poverty is more than that; it is the deprevation of basic needs (as mentioned previously) regardless of financial wellbeing. Hence, I believe that the adoption of PMT alone, of this scale is not appropriate since...

- It shapes public perception into viewing that poverty is purely a financial problem derived from low-income families.
- Monetary poverty does not capture the multiple forms of deprivations, at least among some groups of demographic. (Bader et al. 2016; Illien et al. 2022) (e.g. households with stable financial resources could still experience poverty via lack of adequate housing due to family violence and social exclusion of people with disabilities etc.)
- Solely objective and cannot incorporate subjective feelings (Bedük, 2020; Chan & Wong, 2020)

Using a more holistic model/framework to measure poverty

With the definitions of poverty properly defined, i believe that the indicators of poverty should not only be accessed from a monetary standpoint but also from a non-monetary standpoint as well. This is because monetary measure alone, does not capture the multidimensional nature of poverty and leaves out certain groups of people when measuring poverty. As mentioned previously, poverty can be derived from a lack of rights to adequate housing, food, healthcare and education, which are issues that are not necessary incurred from a deprivation of financial wellbeing:

- A single PMT formula may not fit well to different households such as those with children or those with elderly, and better targeting and tailoring of aid is needed. Gender-disaggregated information may complement the construction of the PMT. As such, we need to design an efficient multidimensional poverty targeting policies that can better measure poverty and provide greater social service delivery in Singapore (Duclos et al. 2018).
- Furthermore, research has also shown that the rate of decline of poverty was less responsive to economic growth -- the elasticity of multidimensional poverty to growth is 5-8 times lower than that of income poverty (Balasubramanian et al. 2023). This suggests that growth alone is not enough reducing poverty in all dimensions requires targeted provisions.

Hence, I believe Singapore should measure poverty via an approach, in addition to PMT, consisting of multiple indicators (which I deem as "Multidimensional Poverty Measurement") to capture the scale and multidimensional aspects of poverty. MPM will then serve as a complementary measure to PMT in better identifying individuals facing specific forms of poverty and thereafter, provide a more targeted form of assistance for them.

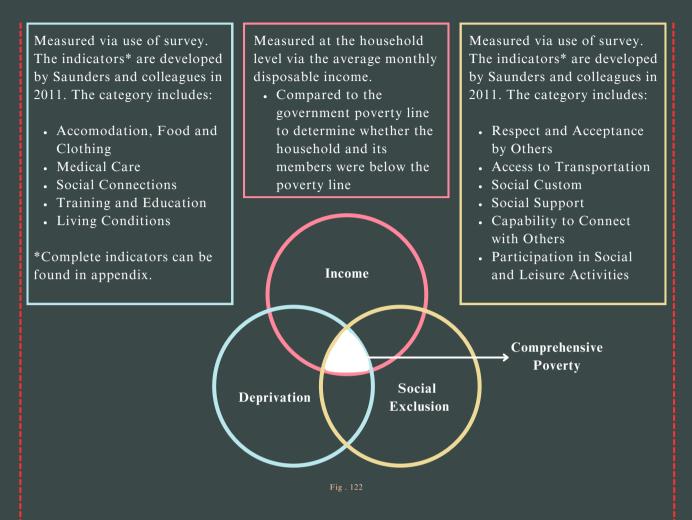
I would like to hereby suggest a universal framework for the measurement of multidimensional poverty specifically targeting developed nations. By doing so, we can abide by the SDG principle of leaving no one behind and being inclusive in the way we collect and analyse data to ensure relevant insights is provided into how everyone is affected by the different components of poverty (Task Force on the Measurement of Social Exclusion, 2021).

Suggested Hypothetical Poverty Measuring Framework

The overall structure and the measurement of the framework will be largely based on those suggested by the Hong Kong's poverty measurement framework proposed by Liu et al. (explained in case study 1)

Case Study 1: Hong Kong's multidimensional poverty measurement framework

One of the multidimensional poverty framework that stood out to me most is one created by Liu et al. This framework included not just the monetary indicators in the form of income, but also the physical and social dimensions' indicators of poverty such as deprivation and social exclusion as shown below. Furthermore, it recognises that a person identified as poor on one dimension may not be poor on another. The truly disadvantaged are identified as poor on multiple dimensions (i.e. suffering from comprehensive poverty).



Determining the Poverty Cut-off (k): Poisson-based framework

By adopting the Poisson distribution (discrete probability distribution), and regard the states of income poverty, deprivation, social exclusion, and comprehensive poverty as events, the mean of these states is used as the mean in the Poisson distribution and each of their probability can be determined. k can be determined when observed empirical frequency > Poisson frequency (Babones et al., 2016) as something beyond random chance must be driving the coincidence of poverty-related states (i.e. actual poverty).

Analysing comprehensive poverty: Alkire & Foster (AF) method of MPI

The AF method is widely applied to analyse poverty from a multidimensional perspective. MPI in this case represents the combination of both measurements in terms of deprivation and social exclusion. The theoretical calculation is as follow:

$$MPI_{\text{overall}} = H_{\text{overall}} \times A_{\text{overall}} = \frac{q}{n} \times \frac{c(k)}{qd}$$

H (Headcount Ratio) : The proportion of the population that is multidimensionally poor

A (Intensity of Poverty): The average deprivation experienced by people identified as multidimensionally poor

- **q**: The number of persons identified as multidimensionally poor
- *n*: The total population
- *d* : The number of poverty dimensions
- c(k): The total number of dimensions of poverty experienced by multidimensionally poor people
 - k : The poverty cut-off

MPI has 2 useful features for poverty analysis:

- 1. Subgroup Decomposability
 - By dividing population into mutually exclusive groups:

$$MPI_{overall} = \sum_{i=1}^{d} weight_{i} \times MPI_{i}$$

$$H_{overall} = \sum_{i=1}^{d} weight_{i} \times H_{i}$$

$$A_{overall} = \sum_{i=1}^{d} weight_{i} \times A_{i}$$

Where weight_{i} = $\frac{Population \ size \ of \ subgroup \ i}{n}$

• Thus, comparison of different subgroups' MPI, H, and A can be made

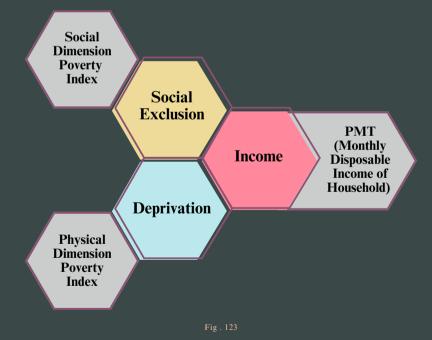
2. Dimensional Breakdown

- Adjusted headcount ratio ($MPI_{overall}$) can be broken down into the censored headcount ratio (MPI_i) of each dimension.
 - This indicates the percentage of the population that is multidimensionally poor and simultaneously suffering from that particular dimension of poverty.
 - Also indicates the percentage contribution of each dimension to the overall MPI.
- Hence, this allows them to prioritize dimensions when considering policies to alleviate poverty.

ource: Liu et al., 202

Below is my proposed multidimensional poverty measurement framework:

Proposed Multidimensional Poverty Measurement Framework



• Poverty measured in terms of Income

This portion addresses the monetary aspects contributing to poverty. This means we measure the financial wellbeing of individuals and hence, their ability to purchase basic needs. In this case, we will be measuring the monthly disposable income of household, and comparing it to the predetermined value of minimum income standard (i.e. poverty line) of the country itself. If monthly disposable income of household is below the minimum income standard, the household is said to be suffering from monetary poverty.

• Poverty measured in terms of Deprivation

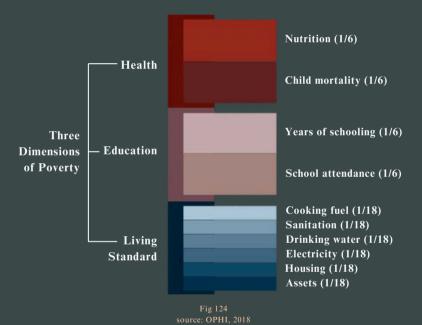
This portion addresses the physical aspects contributing to poverty. This allows us to focus our attention directly on the causes of poverty itself instead of the symptoms of poverty (due to poor financial wellbeing) as provided by PMT measurements, hence making it a better form of measurement. Such an approach can identify the specific basic needs that each individual living in poverty lack via a multidimensional scoring system. Thereafter, the political, social and economic barriers that reinforce poverty can then be identified (Amartya Sen, 1999).

Case Study 2: Multidimensional Poverty Index (MPI)

prevalent to developing countries

What is MPI?

MPI has emerged as an international harmonized indicator simultaneously capturing overlapping deprivations in multiple dimensions of well-being – health, education, and living standards – and complementing traditional monetary poverty measures (OPHI 2018). MPI is currently adopted by countries like Mexico, Vietnam, India etc.

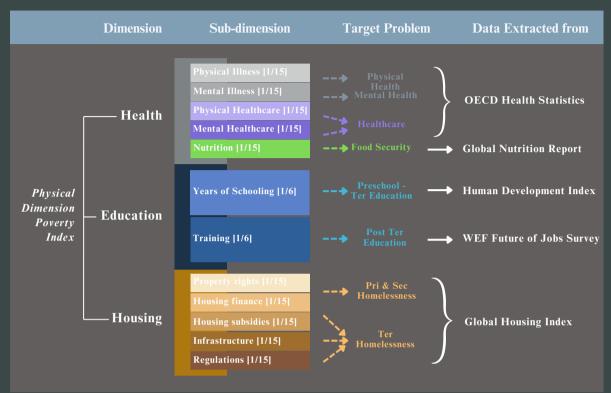


MPI measurements

The MPI assesses poverty at the individual level, with each indicators serving to measure different areas of the Sustainable Developmental Goals (SDGs) which is formed by the UN. If a person is deprived in more than 3 of the 10 (weighted) indicators, the global MPI identifies them as 'MPI poor'. (OPHI 2018)

Downside: Whilst use of MPI has seen incredible success in measuring poverty in terms of capabilities, this index focuses on acute poverty and therefore uses indicators relevant to and available to most developing countries. Hence, it is more prevalent to less developed countries. For a developed country like Singapore, such indicators in the index would not be an accurate form of measurement and not relevant for poverty.

Hence, I have came up with a propsed index called Physical Dimensions of Poverty Index (PDPI) with the indicators and their weightage, measurement and data:



Proposed PDPI measurements

El -	125	
- F19	120	

<u>HEALTH</u>

Dhadaal Illaasa	Managed by the life any extension of draw which the second me
Phyiscal Illness:	Measured by the life expectancy and morbidity rate of the country
Mental Illness:	Measured by the national estimates of prevalence of depression or symptoms of depression
Physical Healthcare:	Measured by quality of integrated care (measured by Patients with adverse outcomes and those who died/readmitted within one year of discharge after ischaemic stroke and CHF) and end of life care (measured by trends in hospital death rates)
Mental Healthcare:	Measured by number of suicides within 1 year after discharge among patients diagnosed with a mental disorder
Nutrition:	Measured through data like obese and underweight population in the country and their deviation below recomended minimum intake
	EDUCATION
	EDUCATION
	years of schooling that a child has at the average age for starting school
	Measured via country's amount invested in mid-career training
	HOUSING
Property Rights:	Measured by barriers to ownership, eviction practices etc.
Housing Finance:	Measured by availabiliy and terms, underwriting etc.
Housing Subsidies:	Measured by amount of benefits, number of target groups etc.
	Measured by the presence and convinience of roads and public transport, police and fire protection etc.
	Measured by land use restriction, rent control etc.

• Poverty measured in terms of Social Exclusion

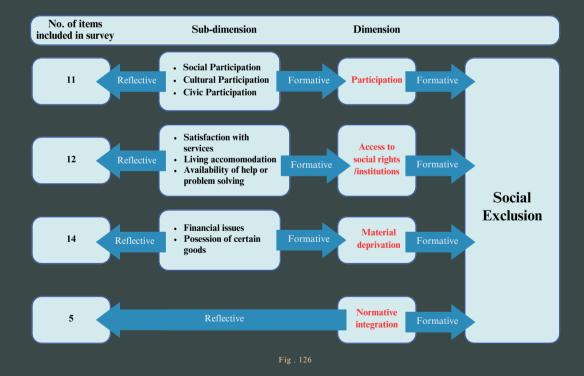
This portion addresses the social aspect contributing to poverty. With the addition of this measurement into our framework, it takes into account the socio-political dynamic that curbs the presence and persistence of poverty, which is often omitted in the PMT measurement alone (UN, 2010). This includes the availability and accessibility of social resources, government services and strength of individual's social network.

Furthermore, this approach is advantageous as it facilitates the analysis and acknowledges the dimension of identity. Within this dimension, a distinction can be drawn between between aspects of identity attributed that are potentially temporary and those that are inherited and remain relatively unchangeable through life (e.g. PWDs, elderly, social orphans etc). (UN, 2010)

One of the index that I have taken close reference in creating my form of social exclusion measurement is from the Netherlands:

Case Study 3: The Netherlands Social Exclusion Index

In this framework, the Netherlands used a Multiple Threshold Approach to measure social exclusion in their society. This means it incorporates different thresholds to define greater/lower exclusion (Task Force on the Measurement of Social Exclusion, 2021). There are 4 dimensions in this index (highlighted in red in fig. 126) and via the Survey of Incomes and Living Conditions (EU-SILC), it measures 42 items across these 4 dimensions. The questionare for each item can be found in Annex B.



How is it measured?

A sum scores for each dimensions is constructed and redistributed into quartile scores ranging from 0 to 3, whereby a higher magnitude refers to higher level of exclusion on the dimension concerned. Thereafter, a one-sum score is calculated from the summation of the quartile scores for all 4 dimensions, ranging from 0 to 12 (0 - no exclusion at all, 12 - maximum exclusion). Lastly, to include population for various background characteristics -

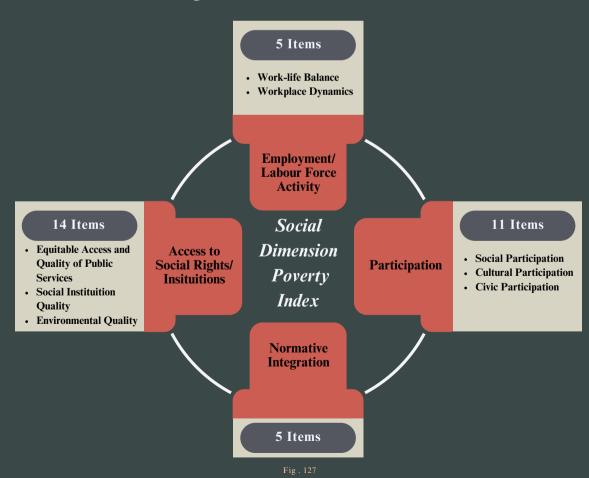
(e.g. gender, age, ethnicity, level of education and marital status) a bivariate analysis, using cross-tabulations and Chi-square tests is applied. Serperately, a logistical regression analysis is used for each dimensions to adjust for the various background characteristics.

Why is this a good index?

This is a very extensive and well-rounded index that is able to successfully measure most of the social dimensions that can be attained by an individual via the indicators. Through the 3 dimensions (exclude material deprivation since it is covered in my deprivation index previously), it covers civic engagement, social connection, environmental quality and many more intangibles forms of basic needs that are often omitted in the measurement of poverty by other indexes. Furthermore, it complements the material deprivation index that I have suggested previously as well.

ource: Coumans & Schmeets, 2014

With reference to the Netherland's Social Exclusion Index, I have came up with a proposed Social Dimension Poverty Index (SDPI) to measure the degree of social exclusion in a country. Similarly, a multiple threshold approach is used in this case with 4 dimensions: Employmeny/Labour force activity, participation, normative integration and access to social rights/instituitions. Each dimensions has sub-dimensions with questionaires attached to it and is incapsulated in the form of a survey. This survey is provided to each household to be completed. The questionaries to the survey can be found in the next page. The mathematical measurement of the results will follow that of the Netherland's Social Exclusion Index.



Proposed SDPI measurements

Questionaire for SDPI

Paticipation			
Sub-dimension	Item	Category	
	Frequency of contact with family	 Hardly ever or never Less than once a 	
	Frequency of contact with relatives	 2. Dess than once a month 3. Once a month 4. 2 times a month 	
Social Participation	Frequency of contact with friends	4. 2 times a month 5. Weekly	
	Getting help with personal problems by family/relatives/friends	1. No, never 2. Sometimes	
	Getting help with financial problems by family/relatives/friends	 Sometimes Yes, always 	
	Pariticipated in any form of online/offline cultural activity over the past year (i.e. cultural celebration, art festivals/exhibition etc.)		
Cultural Participation	Visited any form of cultural site over the past year (i.e. museums, cultural heritage sites, murals etc.)	 Never 1-11 times More than 12 times 	
	Read materials relating to cultural heritage, poetry, cultural literature		
	Volunteer work in the past 12 months		
Civic Participation	Membership of club, society of organisation	1. No 2. Yes	
	Voted at the last elections		

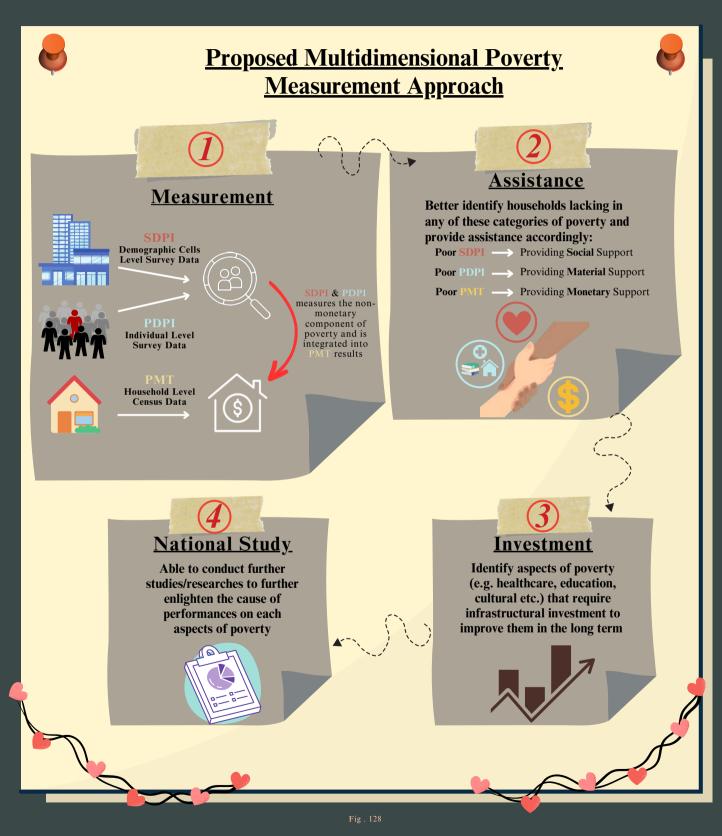
	Employment/Labour Force Activity		
Sub-dimension	Item	Category	
	Overtime Frequency	1. More than 12 days	
Work-life Balance	Satisfied with work conditions	 per month 2. 1-12 days per month 3. Never 	
	Stress level related to work	5. INEVEL	
Workplace	Are treated with respect by other people	1. No	
Dynamics	Are accepted for who you are by others	2. Yes	

	Access to Public Services & Social Rights/Institution		
Sub-dimension	Item	Category	
	Accessibility of legal representation Accessibility of information and communication materials for people with visual or hearing impairments	 Very inaccessible Inaccessible Accessible 	
Equitable Access and	Accessibility transportation from one place to another (i.e. own a transportation device or convinient presence of public transportation system)	4. Very accessible	
Quality of Public	Sufficient presence of ramps, elevators, and other infrastructure in your area to accommodate individuals with disabilities	1. No 2. Yes	
Services	Have some form of insurance coverage	2. 103	
	Satisfied with affordability of public services		
	Satisfied with quality of public servicces	 Very dissatisfied dissatisfied 	
	Satisfied with integration by local authority and other 3rd party organization for reception of asylum sekers	 Not satisfied/ not dissatisfied Satisfied 	
Social Institution	Satisfied with social work	5. Very satisfied	
Quality	Satisfied with the social justice system in the country		
	Trust/Confident in government institutions		
	Noise pollution in the area of accomodation	1. No 2. Vez	
Environmental Quality	Environmental problems/pollution in the area of accomodation	2. Yes	
	Crime violence in the area		

Normative Integration								
	Item	Category						
How acceptable these behaviours are perceived to be:	Avoiding a fare on public transport							
	Throwing away litter in a public place	Scale of 1 - 10 (1 -						
	Paying cash for services to avoid taxes	totally unacceptable, 10 - totally						
	Smoking in public buildings	acceptable)						
	Failing to report damage you've accidentally done to a parked vehicle							

Integration of SDPI and PDPI with PMT measurement

The integration of SDPI and PDPI with conventional PMT measurement could resolve some issues of the standalone approaches in the form of assistance, investment and national study as shown in the proposed Global Multidimensional Poverty approach below:



CONCLUSION

Whilst Singapore is a developed country with poverty being largely hidden from the outside world, it is important to highlight the fact that poverty is not purely monetary-based. In fact, poverty comes in different forms (material deprivation and social exclusion) and poor financial wellbeing is a by-product of it. Instead of providing monetary benefits in hopes to eradicate poverty in Singapore, the government should capitalise on dealing with the root causes of poverty (i.e. food insecurity, social exclusion, lack of adequare housing etc.). Furthermore, with each of the root causes of poverty being so interwhined with one another (i.e food insecurity leads to poor health and poor health leads to poorer education), government policies implemented at tackling poverty should focus on a broader scale that collectively targets all the different components instead of addressing its individual components only.

I also strongly believe that Singapore and other developed nations should start creating a fixed poverty measurement framework (is they have not) that takes into account not only the monetary measures of poverty but also, and with more focus on the non-monetary measures as well. The combination of material deprivation measurement and social exclusion measurement with monetary measures can provide a more comprehensive understanding of poverty within specific communities, ensuring no individuals facing poverty is left out. This then gives us greater insights and regconition to the various forms of poverty suffered by individuals in that particular country, hence, allowing government efforts to come into play, whereby new implemented policies are catered to alleviate these forms of poverty. Ultimately, this can drive lasting changes that increases the chance of eradicating poverty among developed nations.

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Annex A

Categories and indicators	Do not have it because of affordability
Accommodation, Food, and Clothing	8.2%
lave safe living environment without structural dangers.	1.3%
lave sufficient living space at home, with no need to stay in bed all day.	2.9%
lave bathroom inside a self-contained apartment, with no need to share with other families.	1.0%
lave at least one window in the home.	0.0%
an go to a teahouse sometimes in leisure time.	2.5%
lave breakfast every day.	0.2%
lave fresh fruit at least once a week.	0.4%
an buy one or two items of new clothing in a year.	1.1%
lave at least one set of decent clothes.	1.6%
lave enough warm clothes for cold weather.	0.0%
fedical care	21.1%
Nder people can receive adequate care services if needed. an travel to and from hospital by taxi when needed.	6.3%
ble to have periodic dental checkup.	16.3%
ble to consult Chinese medicine practitioner when needed.	2.9%
outpatient service.	5.9%
ble to purchase medicines prescribed by doctors.	7.1%
ocial Connections	6.3%
an take transport to visit relatives and friends.	2.1%
ble to return to hometown if needed.	2.0%
an offer a monetary gift for a wedding.	2.9%
an give lucky money to friends and relatives during Chinese New Year.	1.7%
lave a mobile phone.	1.2%
lave leisure activities and holidays.	1.3%
raining and Education	6.8%
tudents can buy reference books and supplementary exercises. tudents have school uniforms of proper size every year.	2.2%
tudents have access to computer and Internet at home.	1.4%
tudents have access to computer and internet at nome.	2.3%
Vorking parents can use childcare services when needed.	3.0%
lave the opportunity to learn computer skills.	3.2%
Able to attend vocational training.	3.5%
living Conditions	8.3%
lave a television at home.	0.2%
lave air-conditioner at home.	1.0%
Have a camera in the family.	6.7%
Have a refrigerator at home.	0.4%
Can have a hot shower in cold weather.	0.6%
an pay for spectacles if needed. te: Data are weighted.	1.2%
able 2. Categories and Indicators of Social Exclusion in Hong Kong.	
Lategories and indicators	Do not have
lespect and Acceptance by Others	4.0%
re treated with respect by other people.	3.3%
re accepted by others for who you are.	1.5%
Access to Transportation	6.3%
an take transport to visit relatives and friends.	2.7%
ave access to convenient public transportation in the neighbourhood.	3.8%
ocial Custom	9.3%
an offer a monetary gift for a wedding.	3.4%
an give lucky money to friends and relatives during Chinese New Year.	7.3%
lave at least one set of decent clothes.	1.6%
ocial Support	17.0%
ave someone to look after you and help you with housework when you are sic	
lave someone to turn to for money (up to HKD3000) in case of emergency.	9.2%
ave someone to give advice about an important decision in your life.	5.5%
apability to Connect with Others	33.2%
	32.7%
lave basic English speaking and reading skills	3.6%
	3.070
lave a mobile phone.	17 104
lave a mobile phone. Participation in Leisure and Social Activities	17.1%
Have a mobile phone. Participation in Leisure and Social Activities Have leisure and sports facilities in your neighbourhood.	8.8%
Have a mobile phone. Participation in Leisure and Social Activities Have leisure and sports facilities in your neighbourhood. Have a public place to gather with neighbours and friends in your neighbourhood.	8.8% od. 5.6%
Have basic English speaking and reading skills. Have a mobile phone. Participation in Leisure and Social Activities Have leisure and sports facilities in your neighbourhood. Have a public place to gather with neighbours and friends in your neighbourhoo an go to a teahouse sometimes in leisure time. Have leisure activities and holidays.	8.8%

Annex **B**

Distribution of the items in the dimension of participation			Distribution of the items on material deprivation	on			
DIMENSIONS	ITEMS		CATEGORIES		ITEMS		CATEGORIES
Cultural participation	Went to the cinema in the past 12 months		1. more than 12 times 2. 7-12 times 3. 4-6 times 4. 1-3 times 5. Never		Ability to make ends meet with net income		1. very easy 2. easy 3. rather easy 4. rather difficult 5. difficult 6. very difficult
	Went to a concert or a show in the past 12 months		1. more than 12 times 2. 7-12 times 3. 4-6 times 4. 1-3 times		Financial burden of total housing cost		1. no burden at all 2. some burden 3. heavy burden
	Paid a visit to cultural sights in the past 12 months		5. Never 1. more than 12 times 2. 7-12 times 3. 4-6 times		Financial burden of the repayment of debts from hire purchases or loans		1. no arrears 2. no burden 3. some burden 4. heavy burden
		4. 1-3 tim 5. Never		ies	Arrears on mortgage or rent payments, utility bills, hire purchase instalments or other loan payments*		1. no 2. yes
Social participation	How often had contact with family		1. weekly 2. 2 times a month 3. once a month		Capacity to afford to pay for one week annual holiday away from home		1. yes 2. no
			4. less than once a month		Capacity to afford a meal with meat, chicken, fish (or vegetarian equivalent) every second day		1. yes 2. no
	How often had contact with friend	k	5. hardly ever or never 1. weekly 2. 2 times a month		Capacity to afford changing old furniture for new		1. yes 2. no
			3. once a 4. less the	month an once a month	Capacity to afford buying new clothes on a regular basis		1. yes 2. no
	Getting help from friends with per	rsonal problems	5. hardly ever or never 1. Yes, always		Capacity to afford inviting friends or family for dinner once a month		1. yes 2. no
			2. Someti 3. No. ne	ver	Capacity to face unexpected financial expenses of 850 euro, without	borrowing money	1. yes 2. no
	Getting help from friend with fina	ncial problems	1. Yes, always 2. Sometimes 3. No, never		Ability to keep home adequately warm		1. yes 2. no
Civic/Political	Volunteer work in the past 12 more	nths	1. Yes		Do you have a colour TV?		1. yes 2. no
participation	Offered informal help in the past 12 weeks		2. No 1. Yes 2. No		Do you have a computer?		1. yes 2. no
	Membership of club, society of or	ganisation	1. Yes 2. No		Do you have a washing machine?		1. yes 2. no
	Voted at the last elections		1. Yes 2. No		Do you have a car?		1. yes 2. no
Distribution of th	ne items in the dimension	of access to basic	social ri	ghts and institution	Distribution of items on normative integration		
Description			2.4309998-3U		-	AVERAGE SCORE	% SCORE 6 -10
	etting a social benefit from the	ORIGINAL CATEGO 1. very satisfied	RIES	NEW CATEGORIES 1-3 Other	Avoiding a fare on public transport	1.90	4.10
executive institute for er	mployee insurance	2. satisfied 3. not satisfied/not dissatisfied		4/5 (very) dissatisfied	Throwing away litter in a public place	1.40	0.93
		4. dissatisfied 5. very dissatisfied			Paying cash for services to avoid taxes	3.19	14.47
Satisfied with help in finding a job by the executive institute for employee insurance		very satisfied satisfied satisfied/not dissatisfied dissatisfied		1-3 Other 4/5 (very) dissatisfied	Smoking in public buildings	2.64	11.67
					Failing to report damage you've accidentally done to a parked vehicle	1.23	0.63
Satisfied with help from the social insurance company		5. very dissatisfied 1. very satisfied 2. satisfied 3. not satisfied/not dissatisfied 4. dissatisfied 5. very dissatisfied		1-3 Other 4/5 (very) dissatisfied	-		
Satisfied with integration by the local authority, aliens department or executive institute for reception of asylum seekers		1. very satisfied 2. satisfied 3. not satisfied/not dissatisfied 4. dissatisfied 5. very dissatisfied		1-3 Other 4/5 (very) dissatisfied			
Satisfied with social work		very satisfied satisfied satisfied sot satisfied/not dissatisfied dissatisfied s. very dissatisfied		1-3 Other 4/5 (very) dissatisfied			
Unmet need for dental to	eatment	1. no 2. yes					
Unmet need for medical treatment		1. no 2. yes			-		
Not able to move to another house when there is a problem					-		
and wanting to Problems with the dwelling: Leaking roof		2. yes 1. no 2. yes			-		
Problems with the dwelling: Damp walls		1. no			-		
Problems with the dwelling: Rotting window frames		2. yes 1. no			-		
Problems with the dwelling: Too dark, not enough light		2. yes 1. no					
Noise pollution		2. yes 1. no					
Pollution, grime or other environmental problems		2. yes 1. no					
Crime violence or vandalism in the area		2. yes 1. no					
		2. yes					