

Geographical Investigation

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01

Empathise

Presenting area chosen and analysing
survey results

Area chosen

Location: Along Upper Thomson Road (Opposite Lakeview Estate)

Amenities in the area:

- MRT Station (CC16 Marymount, TE8 Upper Thomson)
- Bus Station (Opp Shunfu Est, Opp St Theresa's Hme)
- Shopping Mall (Sin Ming Plaza)
- Nursing Home (St Theresa's Home)
- Bank (OCBC Bank)
- Dining areas (Knockhouse Cafe, Prata House)
- Supermarket (Sheng Siong Supermarket)

Land use: Residential/Commercial



Reason for choosing the area

- It is an empty plot of land **suitable for urban development**
- There is **enough space** to allow for a facility to be established
- **Very good accessibility**
 - Pre-existing transport facilities such as MRT stations and bus stops nearby
 - Makes building a facility there optimal as people can easily reach it

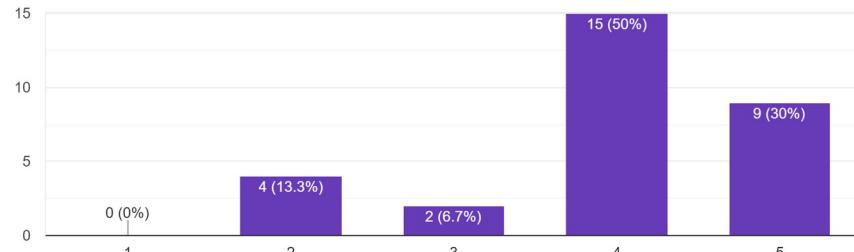


Analysis of survey results

- Since only **30%** of the respondents answered “5” (out of 5)
- Hence this shows that there is still **room for improvement** when it comes to provision of amenities
- And **more amenities** should be built

Do you think there are sufficient amenities in your area? (you can access everything you need without travelling very far)

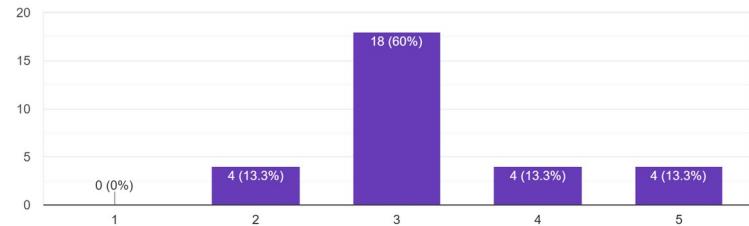
30 responses



Analysis of survey results

- **60%** of respondents felt that the accessibility of such amenities for the disabled and elderly population was of an **average quality**.
- This shows that there is still **improvement to be done** when it comes to accessibility for the disabled and the elderly, e.g.:
 - ramps and lifts
 - markings/bumps on the ground (tactile surfaces)
 - handrails and poles for support

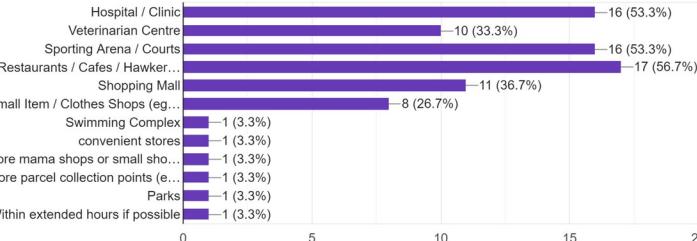
How much do the amenities cater to people with disabilities? (tactile surfaces, bigger font size)
30 responses



Analysis of survey results

- 3 types of amenities respondents think most of the population in their area needs are **medical services, sport facilities and F&B**
- This shows that there will be **considerable demand** for such amenities
- Although F&B ranked first, we decided against this as there were already **many F&B outlets** lining the roads nearby – perhaps respondents were just hoping for even more food options – and building another F&B centre may be an **uneconomic duplication**

What amenities do you think most of the population in your area needs?
30 responses



02

Define

Explaining the 3 POVs and target group

The 3 POVs

Target group	+	Needs	+	Reasons
The elderly	need	a specialised healthcare facility	because	they need an easily accessible healthcare centre that offers targeted care for their illnesses
Teenagers	need	a sports centre	because	it will allow them to exercise to de-stress through having fun and to live a healthy lifestyle.
Disabled children	need	a disabled-friendly playground	because	many neighbourhood playgrounds are not very disabled-friendly and these children should deserve to enjoy the same fun as others.

Target group

We have decided to work with the POV for the **elderly population**, because:

- Bishan, as well as nearby Ang Mo Kio and Toa Payoh, is an **older housing estate**
 - Tend to have **more elderlyies**
 - Elderlies will need more **specialised care**
 - Because many of them are likely to have **chronic diseases**
 - This also means that the **frequency** of visiting healthcare facilities is **high**
 - Therefore there is **high demand** for elderly healthcare



03

Ideate

Brainstorming solutions

Idea 1: Elderly Rehabilitation Centre

- An **elderly rehabilitation centre** that includes a **24/7 emergency department** to tend to movement accidents
- The elderly population is **physically weaker** in motion and are **prone to movement accidents**
- For example, a senior citizen may have a bad fall during midnight, leading to injuries which may be serious and require hospitalisation
- However, with such a rehabilitation centre, the elderly may be admitted into the centre for care, **even during midnight**
- A centre that has both rehabilitation and emergency services will provide much **convenience** to the elderlies

Idea 2: Elderly chronic diseases care centre

- Chronic diseases refer to long term health conditions that require ongoing medical attention
- Chronic diseases **common** in senior citizens include diabetes, cancer, Parkinson's etc.
- Since the area chosen is located near **old estates inhabited by many elderlys**, a chronic disease care centre should be established, allowing the elderly population to **visit frequently for regular checkups and treatments without travelling long distances**.
 - This increases **convenience** for the elderly population, as many of them require assistance with mobility.

Idea 3: Elderly Mental Health Institution

- Mental illnesses are **common** among older population, as they become **frustrated** over the **loss of the ability to live independently** due to frailty, reduced mobility or disability, or a pre-existing or recent onset of a chronic physical condition
- Common mental illnesses that are prevalent in the elderly include depression, dementia, anxiety etc.
- Provision of a mental health institution would greatly benefit the elderly population, even more so in our society, which still tends to stigmatise mental illnesses.

Idea 4: Integrated Nursing Home with Specialised Medical Care Facilities

- A number of elderly will need to stay in nursing homes because of reasons such as **requiring specialised care and being abandoned by family members etc.**
- Establishing an integrated nursing home would provide **care for the elderly**, with the added benefit of **specialised medical care to provide treatment** for the elderly
- This makes it **more convenient** as current nursing homes only have basic medical facilities and severe cases will have to be referred to a hospital, but with this integrated nursing home, all can be done within it.

Idea 5: Comprehensive elderly healthcare centre

- An elderly healthcare centre that offers **specialised care targeting common illnesses** among elderlys, such as chronic diseases, as well as providing a place for health check-ups and wards
- This can be helpful as elderlys tend to have **weaker health**, and will require **more medical services**
- Around the area we chosen, there are **no large hospitals**, with the exception of Mount Alvernia Hospital, however, that is a **private hospital**, which means the cost of medical services are **much more expensive** – poorer elderlys may not be able to afford, while others may hope for a cheaper alternative, yet is within shorter travel distance

04

Land-use Design

Presenting and explaining selected
design

Selected design - details

- We chose to propose for a **comprehensive elderly healthcare facility** (specialised for the elderly)
- This healthcare facility will have 5 stories
 - Dedicated to our respective areas of focus
 - Helps in giving clear directions to the elderly in the facility.

Level 1

- Registration and service counters
- Mini garden (place for elderlyies to relax and stroll)
- Cafe (to allow easy access to food and drinks)

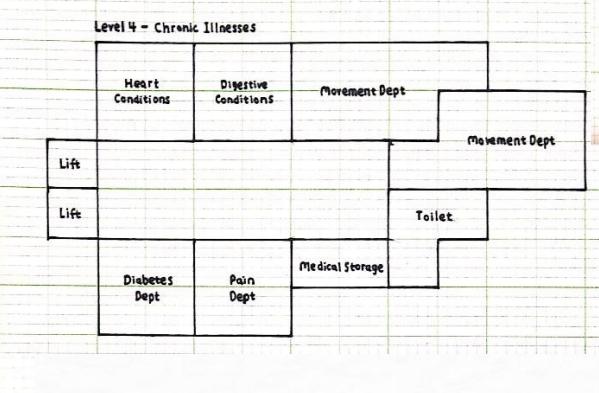
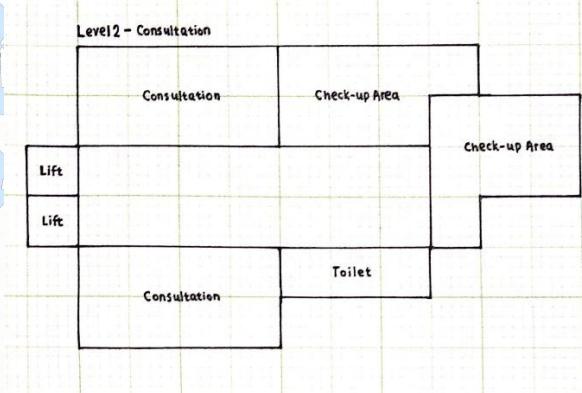
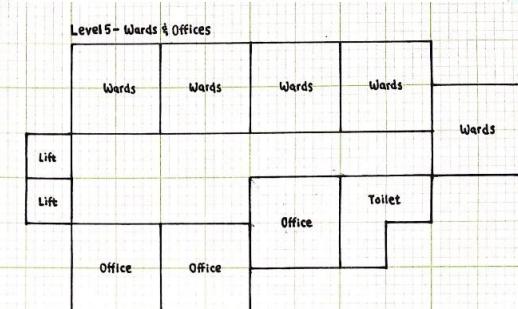
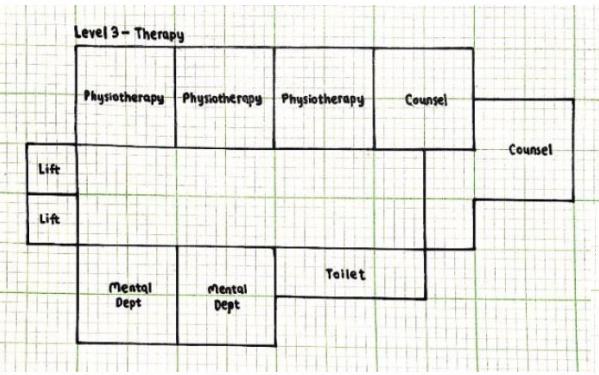
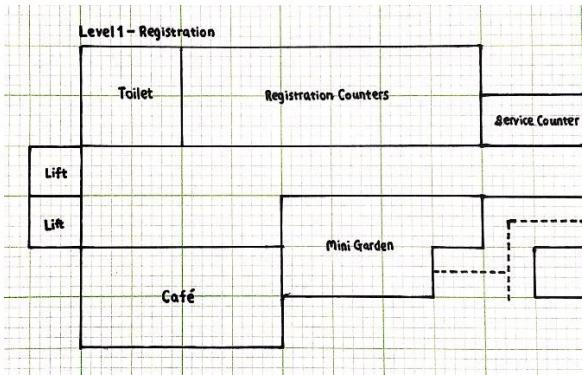
Level 2: Consultation

- Consultation rooms
- Medical check-up stations

Selected design - details

- **Level 3: Therapy**
 - Physiotherapy stations
 - Counselling rooms
 - Mental health department
- **Level 4: Chronic Illnesses**
 - Heart & Digestive Conditions
 - Movement Department
 - Diabetes Department
 - Chronic Pain Department
 - Medical Storage Room
- **Level 5: Wards and Offices**
 - General Wards
 - Offices
 - Storage Rooms

Sketch of floorplan (original draft)



Explaining selected design

- Wide range of specialised medical services
 - The medical services offered target common illnesses elderly may be diagnosed with
 - Coupled with the wide range, many elderly's medical needs can be fulfilled at the proposed elderly healthcare centre
 - Specialised services ensure the ability of the healthcare centre to deal with more severe conditions
- Elderly-friendly facilities
 - Examples include:
 - Handrails □ provide support for elderly who are physically weaker to walk safely
 - Anti-slip mats in toilets □ ensure that elderly, who cannot afford a fall, will not slip and fall easily in an area that tends to be slippery
 - Ramps □ some elderly may be on wheelchairs due to injuries or permanent conditions, as such ramps make the healthcare centre more accessible

05

Model

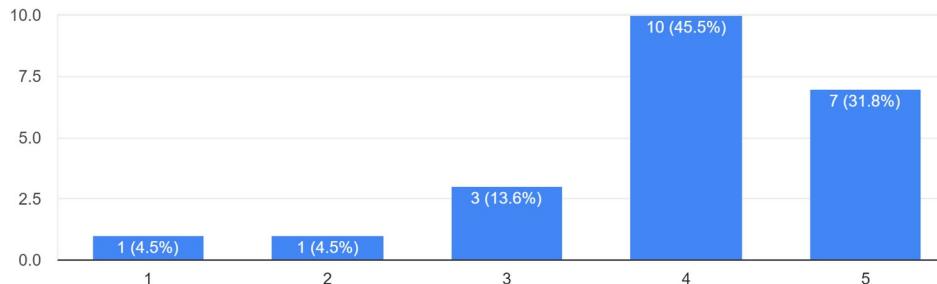
Analysing feedbacks and presenting
amended design + model

Analysis of feedbacks

- Most of the respondents (**77%**) rated at least 4 for the appropriateness of such amenity
- This shows that the our proposed amenity **fit the needs of the residents well**

How suitable do you think building such a healthcare centre for the elderly in this area (roughly the area outlined in blue) is?

22 responses

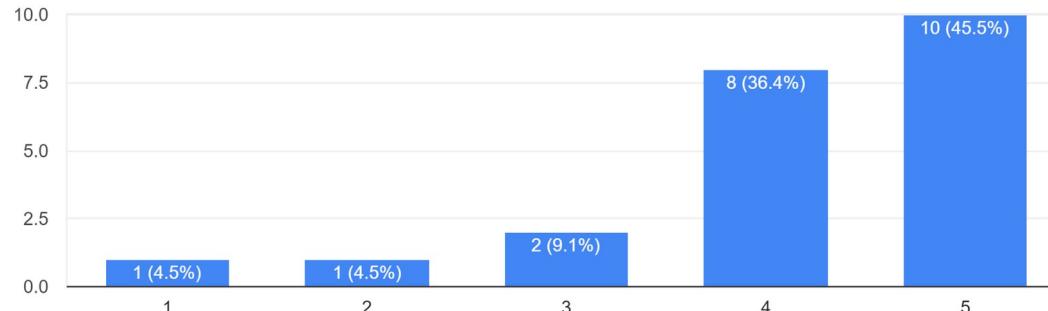


Analysis of feedbacks

- Most respondents (**82%**) felt that the facilities included in the healthcare centre we had proposed **catered to the needs of the elderly well** (rated 4 and above)
- Shows that the proposed facilities are **appropriate and sufficient**

How sufficient/appropriate is the facilities proposed to cater to the healthcare needs of elderly?

22 responses

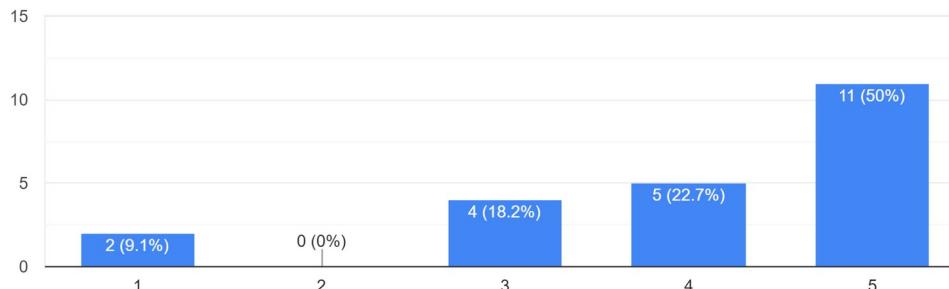


Analysis of feedbacks

- Most respondents (**73%**) felt that accessibility to parts of the healthcare centre is good (4 and above).
- This indicates that elderly will **not have too much difficulty to move around** the healthcare centre

How accessible is the overall layout of the clinic?

22 responses



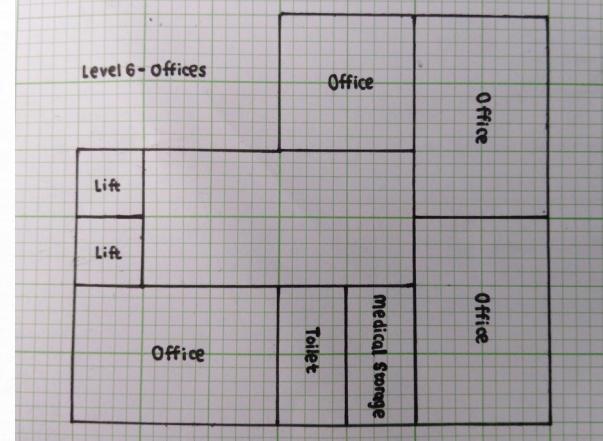
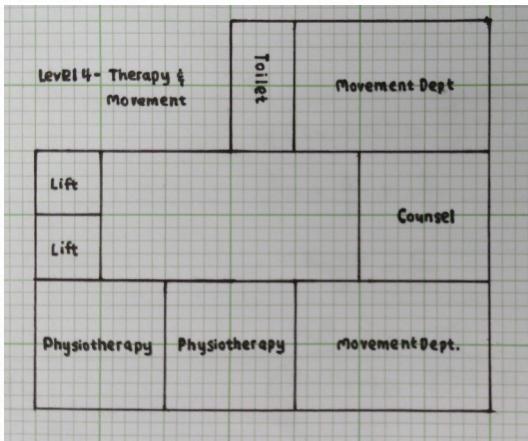
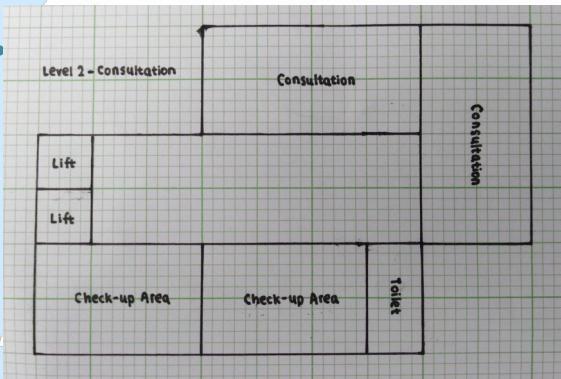
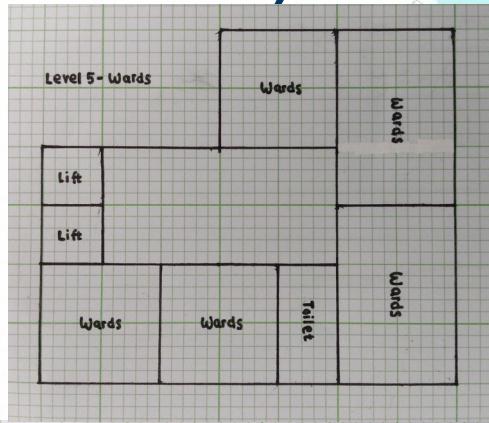
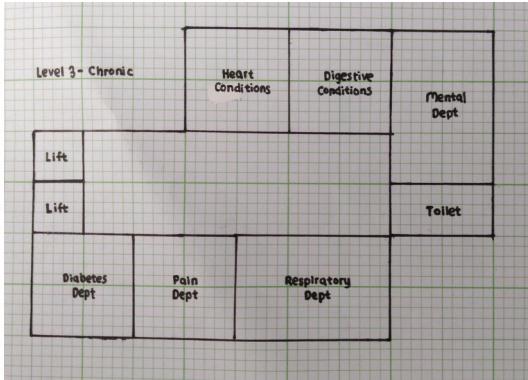
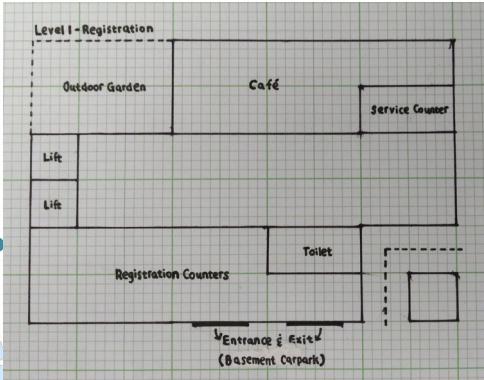
Analysis of feedbacks

Among other questions and responses, there are 2 which we think is quite useful

When asked to suggest some facilities respondents will like to see removed or added:

- “Food preparation area, sluice room, fire escape routes, fireman lift, storeroom. In general, the allocation of wards should not be with offices, and the chronic diseases clinic should not be a floor away from consultation rooms because that is very likely the next stop for elderly after consultation. Movement conditions should be with physiotherapy dept to consolidate the same conditions together at the same floor to minimize movement of patients.”
- “respiratory dept? a lot of elderly have conditions like wheezing, find it challenging when inhaling etc”

Amended design (with 6 stories)



Now, let's take a
look at our
model!

06

References

Citing references to materials
researched

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- b. Travel Triangle (2022). *Things To Do In Marymount[,] Singapore*. Retrieved from <https://traveltriangle.com/blog/things-to-do-in-marymount-singapore-bdp/>.



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