



UNIVERSITY OF MAURITIUS



Assessing technology readiness among older adults: for the future development of health and well-being programmes

Thematic Area:
**Health
and Wellness**

Collaborators:

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Government vision and SDGs

Vision: build a healthier and happier nation.

- Recognising the importance of physical activities in daily living and by promoting Physical Activities - National Sport and Physical Activity policy (2018) and National Integrated Non-Communicable Diseases Action Plan 2023-2028 (2023)

Impact on SDGs

- SDG 3 (Good health and Wellbeing) - findings will be used for the development of future health and well-being programmes based on digital media.
- SDG 8 (Decent work and Economic Growth) - healthier older adults can still contribute in SMEs or their own businesses, thereby contributing directly to the country's economic growth

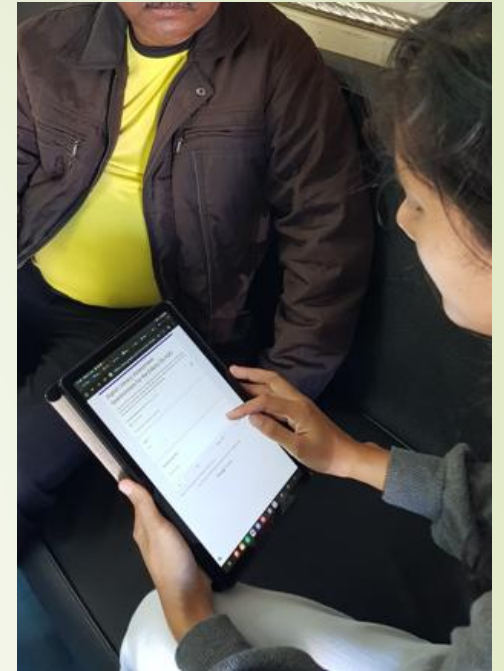


Importance of the project

- Mauritius is facing an ageing population.
- More than 6.16% of GDP is spent on NCDs such as diabetes, cardiovascular and other such diseases (2022)
- Increased risk of psychological disorders such as anxiety, depression and dementia in older people.
- When current state of the digital literacy among older adults (50+) in Mauritius is unclear → challenging to design effective digital health programs for this population.

Methodology

- Digital Literacy Assessment Questionnaire for the Elderly (DLAQE)
 - A. **General**
 - Inc validated Questionnaires:
 - B. **RAPA** (Rapid Assessment of Physical Activity Questionnaire)
 - C. **MDPQ** (Mobile Device Proficiency Questionnaire)
 - D. **DHRQ** (Digital Health Readiness Questionnaire)
- 3 Trainee Project Assistants (TPAs) recruited to assist older adults in filling the questionnaire online. **693** older adults surveyed (*99% confidence level, with a 5% margin of error*).
- Analysis of responses
- Dissemination of results through publication.

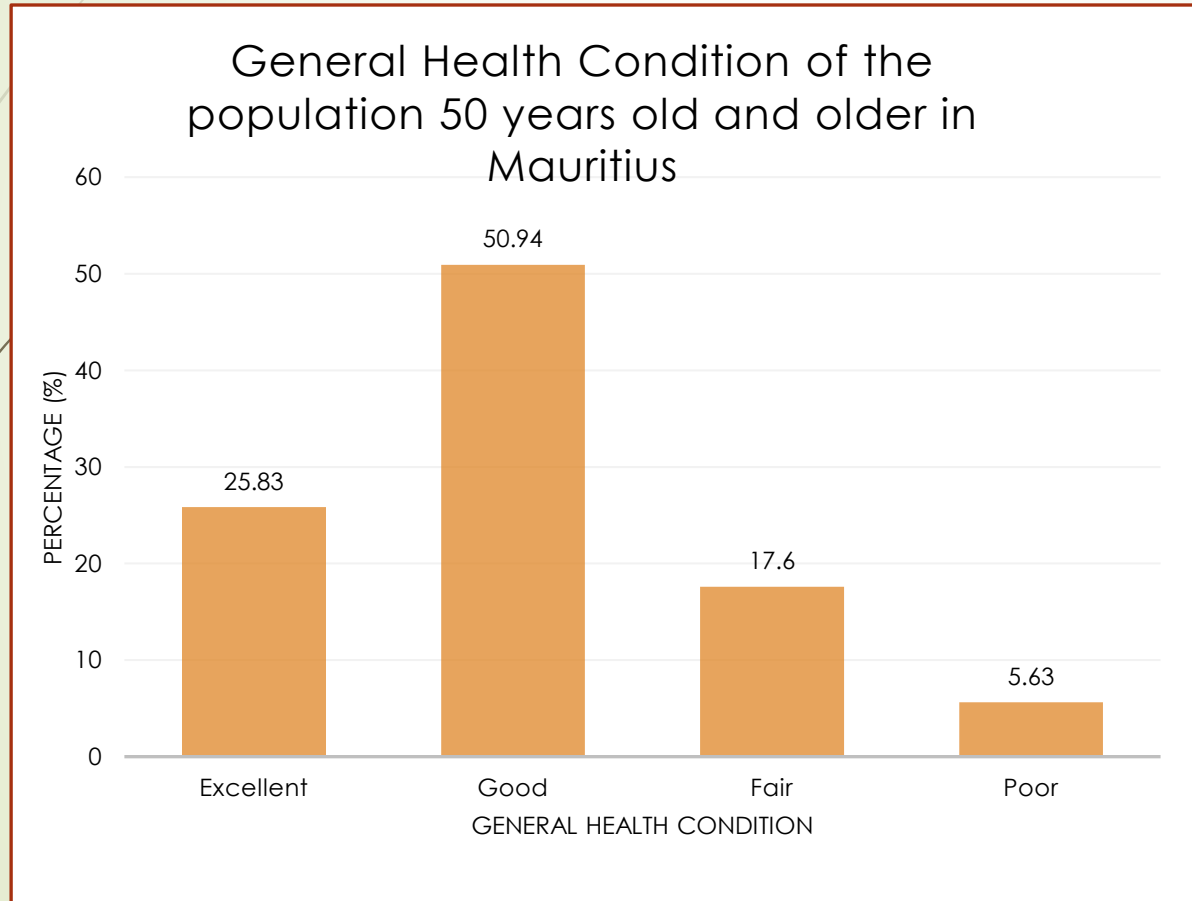


Sample surveyed – age groups/districts/etc

Variable	Measure	Frequency	Percent (%)
Gender	Female	365	52.7
	Male	328	47.3
Regions	Central	256	37
	East	111	16
	North	181	26.1
	South	70	10.1
	West	75	10.8
Area	Rural	439	63.3
	Urban	254	36.7
District	Black River	48	6.9
	Flacq	93	13.4
	Grand Port	42	6.1
	Moka	51	7.3
	Pamplemousses	83	12
	Plaines Wilhems	203	29.3
	Port Louis	68	9.8
	Rivière du Rempart	67	9.7
	Savanne	38	5.5

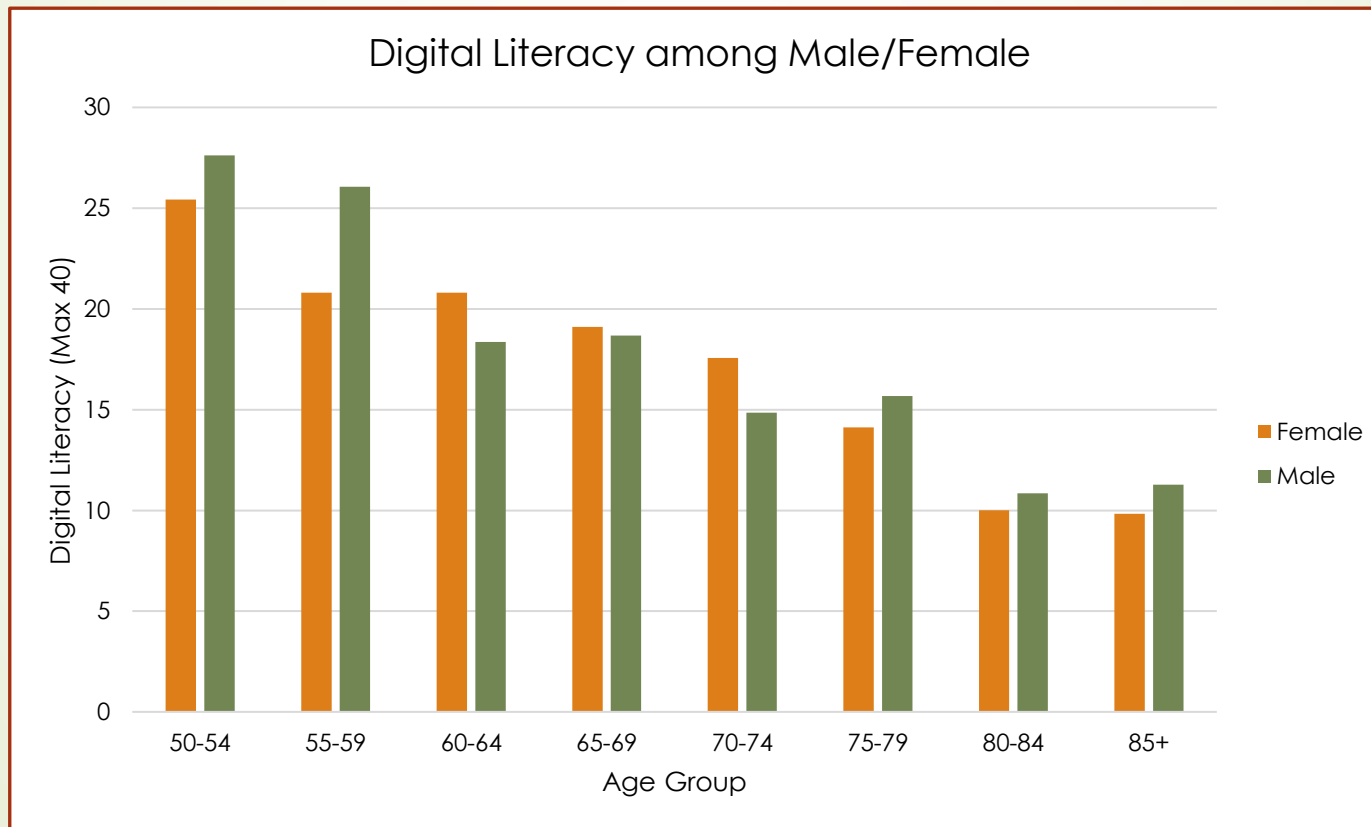
Port Louis				Pamplemousses				Rivière du Rempart			
Age Group	Male	Female	Total	Age Group	Male	Female	Total	Age Group	Male	Female	Total
50 - 54	8	6	14	50 - 54	6	8	14	50 - 54	8	8	16
55 - 59	6	7	13	55 - 59	9	12	21	55 - 59	7	5	12
60 - 64	6	7	13	60 - 64	5	7	12	60 - 64	7	7	14
65 - 69	4	5	9	65 - 69	7	9	16	65 - 69	3	6	9
70 - 74	7	5	12	70 - 74	8	4	12	70 - 74	3	4	7
75 - 79	2	2	4	75 - 79	2	3	5	75 - 79	4	2	6
80 - 84	1	0	1	80 - 84	0	2	2	80 - 84	1	1	2
85+	2	0	2	85+	0	1	1	85+	0	1	1
Total	36	32	68	Total	37	46	83	Total	33	34	67
Flacq				Grand Port				Savanne			
Age Group	Male	Female	Total	Age Group	Male	Female	Total	Age Group	Male	Female	Total
50 - 54	6	15	21	50 - 54	4	7	11	50 - 54	4	4	8
55 - 59	12	11	23	55 - 59	7	7	14	55 - 59	2	6	8
60 - 64	14	7	21	60 - 64	5	6	11	60 - 64	4	4	8
65 - 69	6	6	12	65 - 69	0	2	2	65 - 69	5	2	7
70 - 74	3	5	8	70 - 74	0	0	0	70 - 74	2	2	4
75 - 79	1	3	4	75 - 79	2	2	4	75 - 79	0	1	1
80 - 84	1	1	2	80 - 84	0	0	0	80 - 84	1	1	2
85+	1	1	2	85+	0	0	0	85+	0	0	0
Total	44	49	93	Total	18	24	42	Total	18	20	38
Plaines Wilhems				Moka				Black River			
Age Group	Male	Female	Total	Age Group	Male	Female	Total	Age Group	Male	Female	Total
50 - 54	20	19	39	50 - 54	6	6	12	50 - 54	5	5	10
55 - 59	15	22	37	55 - 59	5	7	12	55 - 59	7	4	11
60 - 64	19	20	39	60 - 64	5	4	9	60 - 64	4	8	12
65 - 69	19	16	35	65 - 69	3	3	6	65 - 69	3	3	6
70 - 74	11	13	24	70 - 74	3	4	7	70 - 74	2	2	4
75 - 79	6	9	15	75 - 79	1	1	2	75 - 79	1	2	3
80 - 84	4	4	8	80 - 84	1	0	1	80 - 84	0	1	1
85+	2	4	6	85+	0	2	2	85+	0	1	1
Total	96	107	203	Total	24	27	51	Total	22	26	48

Findings : General Health Conditions



- Excellent - No known health issues or medical conditions
- Good - Generally healthy, but with minor manageable health concerns
- Fair - Some health issues or medical conditions that may affect physical activities
- Poor - Significant health issues or medical conditions that limit physical activities

Findings: Digital Literacy by Age/Gender



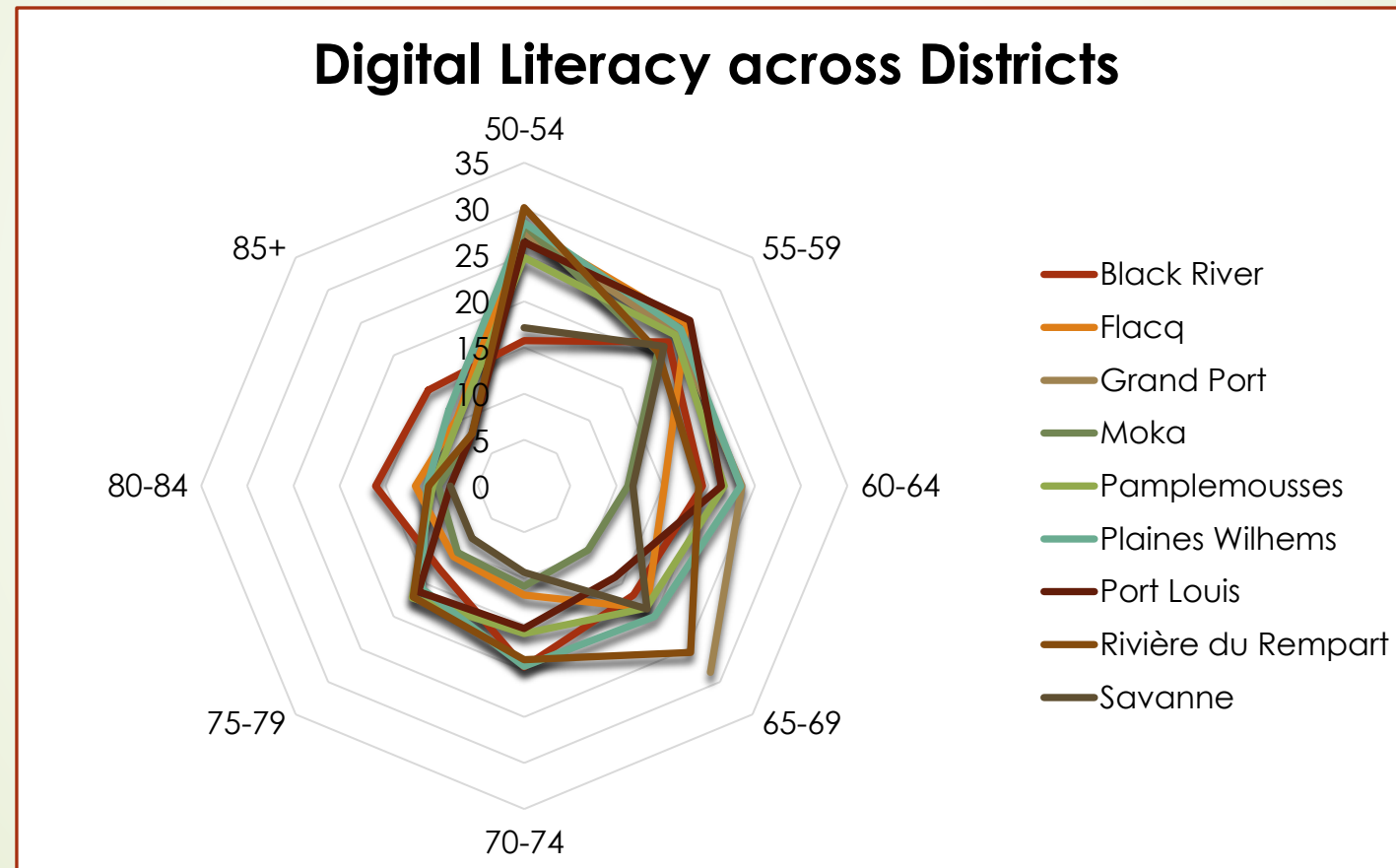
Higher total scores are better.

Younger (**college-aged**) respondents typically score close to **40**.

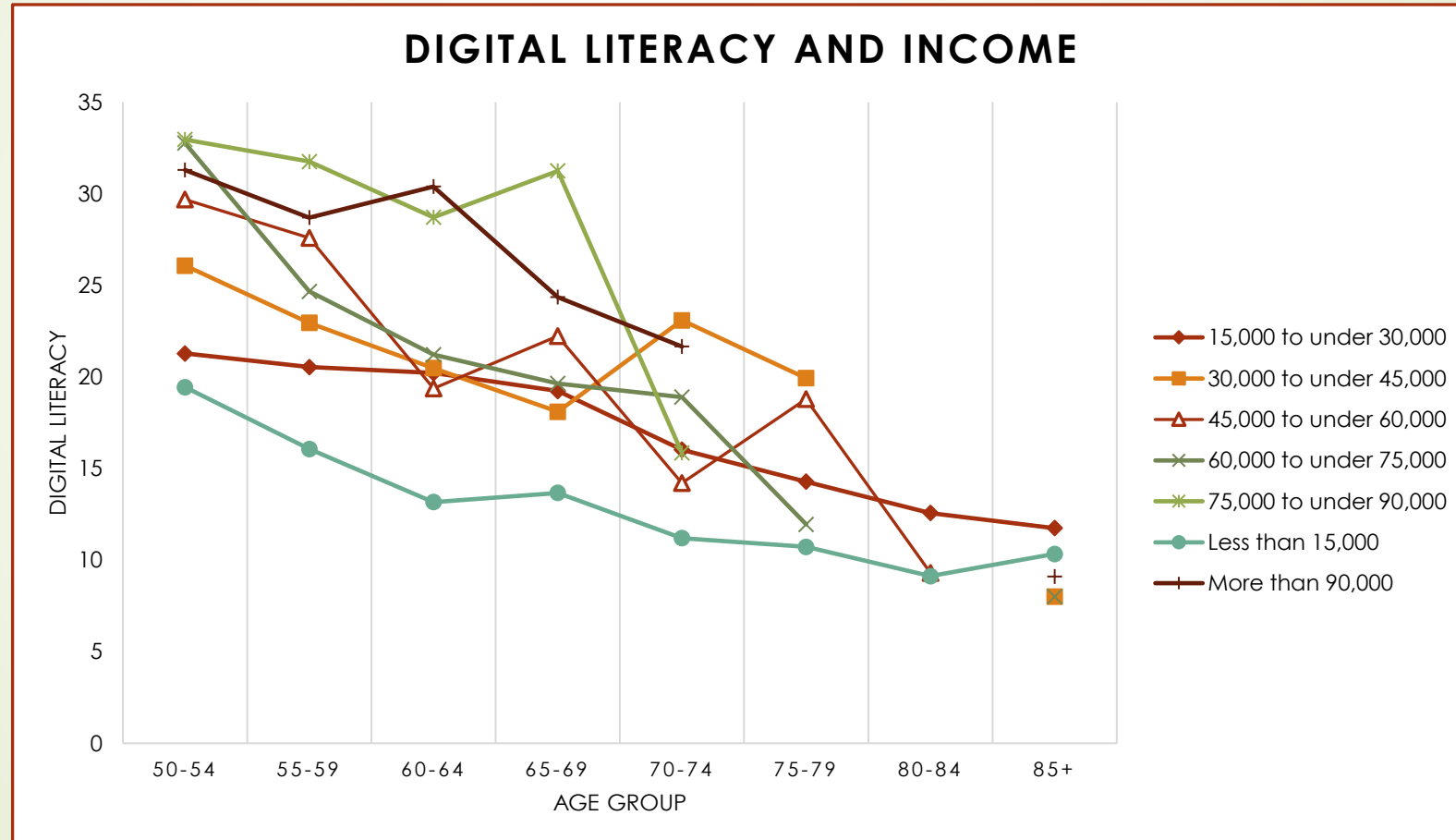
Older (**65 years or older**) respondents typically score around **20**.

These numbers can help determine whether respondents are below average and might need additional training or support.

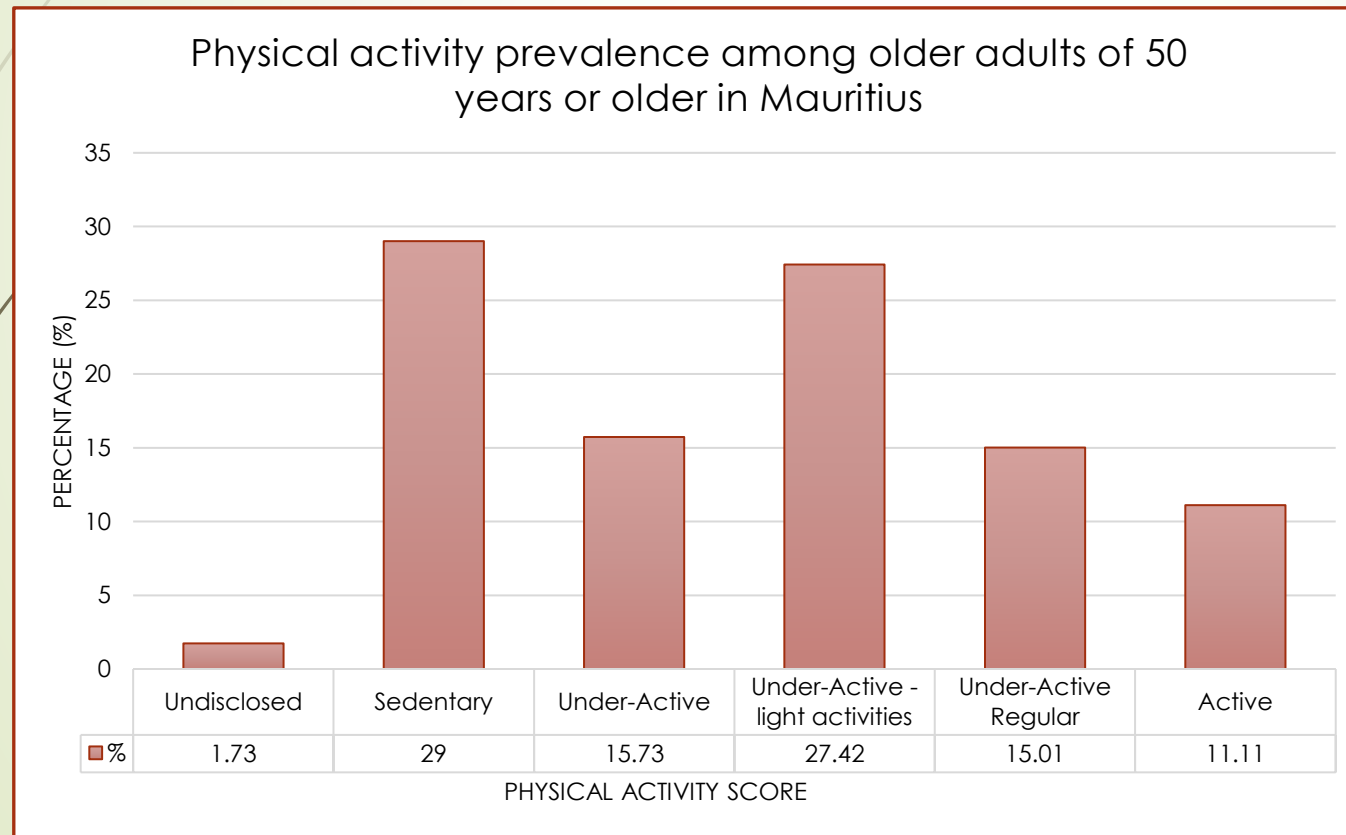
Findings: Digital Literacy by Age/District



Findings: Digital Literacy by Income



Findings: Physical Activity Prevalence among older adults of 50+ years



RAPA 1: Aerobic

To score, choose the question with the highest score with an affirmative response. Any number less than 6 is suboptimal.

For scoring or summarizing categorically:

Score as sedentary:

1. I rarely or never do any physical activities.

Score as under-active:

2. I do some light or moderate physical activities, but not every week.

Score as under-active regular – light activities:

3. I do some light physical activity every week.

Score as under-active regular:

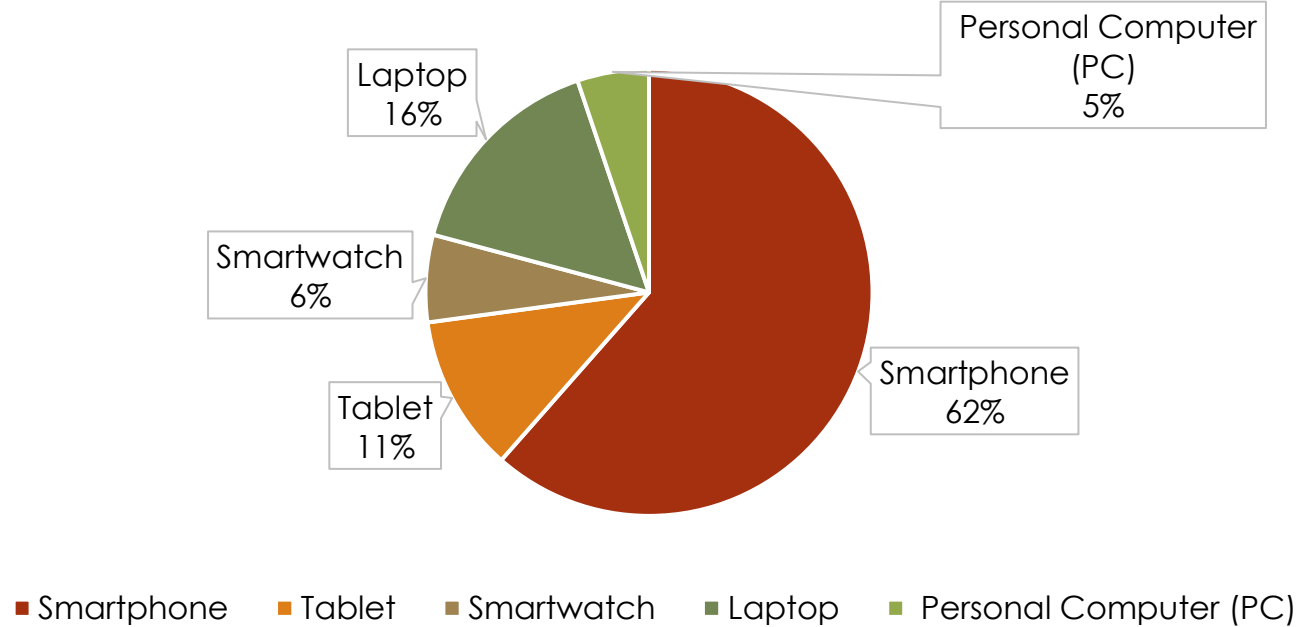
4. I do moderate physical activities every week, but less than 30 minutes a day or 5 days a week.
5. I do vigorous physical activities every week, but less than 20 minutes a day or 3 days a week.

Score as active:

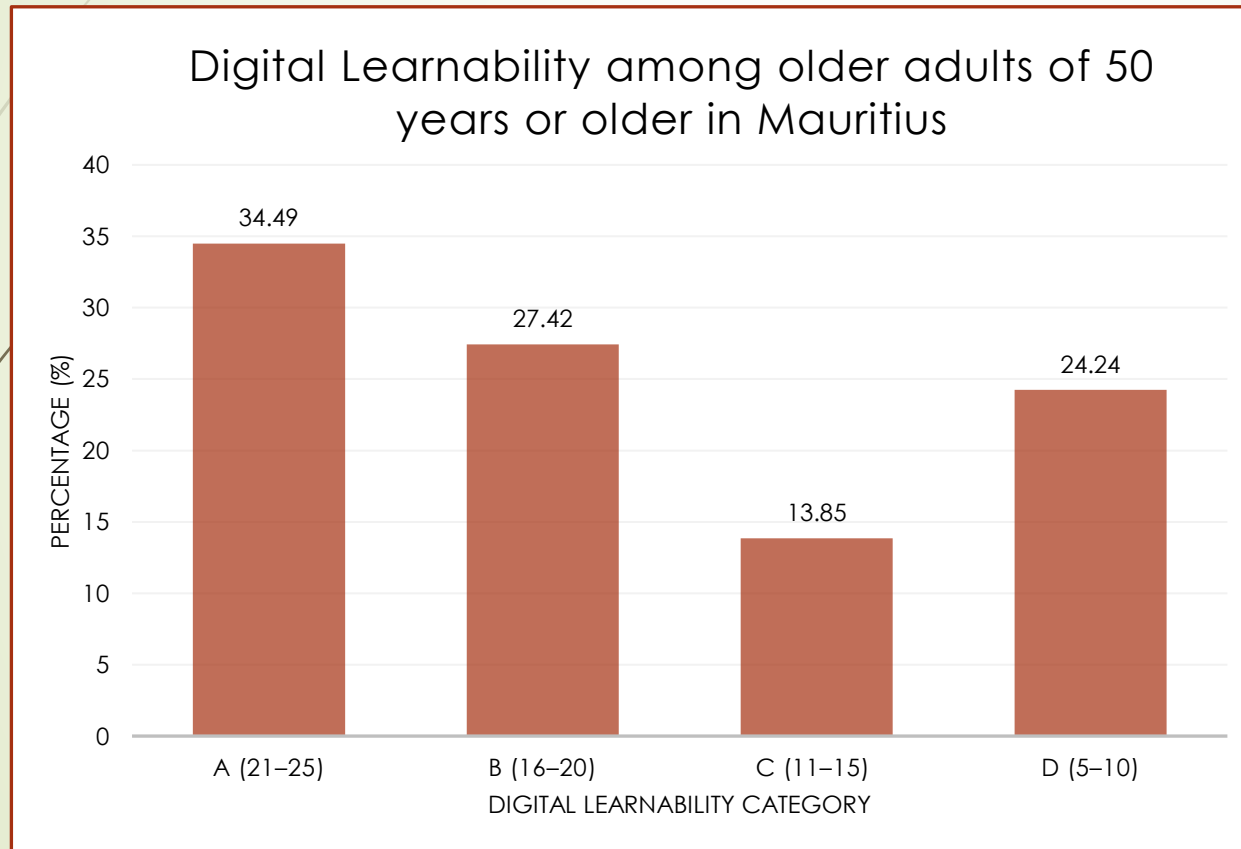
6. I do 30 minutes or more a day of moderate physical activities, 5 or more days a week.
7. I do 20 minutes or more a day of vigorous physical activities, 3 or more days a week.

Findings: smartphone prevalence among older Mauritians

Most popular devices among older adults of 50 years or older in Mauritius



Findings : Digital learnability



- DL: individual's motivation and willingness to engage with and learn new technologies
- Classified into one of four categories: **Group A (21-25)**, **Group B (16-20)**, **Group C (11-15)** and **Group D (5-10)**, with Group A representing the highest level of digital learnability and Group D the lowest



What we know?

- NCDs place a significant burden on the Mauritian healthcare system (perception vs reality).
- Sedentary behaviour increases NCD risk and the older the individual, the higher the risk.
- Regular physical activity can support healthy ageing by reducing the risk of NCDs and extending the period during which individuals enjoy good health.
- Smartphone technology offers an accessible medium for the development and delivery of health and wellness programmes.
- However, for the health programmes to be useful, the older population have to be digitally literate and willing to engage with and learn new technologies.



Outcome

The results show that:

- Older Mauritians generally perceive themselves as being in good health
- Older Mauritians (until about 70 years old) can be considered as digitally literate (DL close to 20)
- A majority of older adults in the country is either sedentary or under-active
- Smartphone is the most common device among older Mauritians
- A high number of older adults are willing to learn new technologies

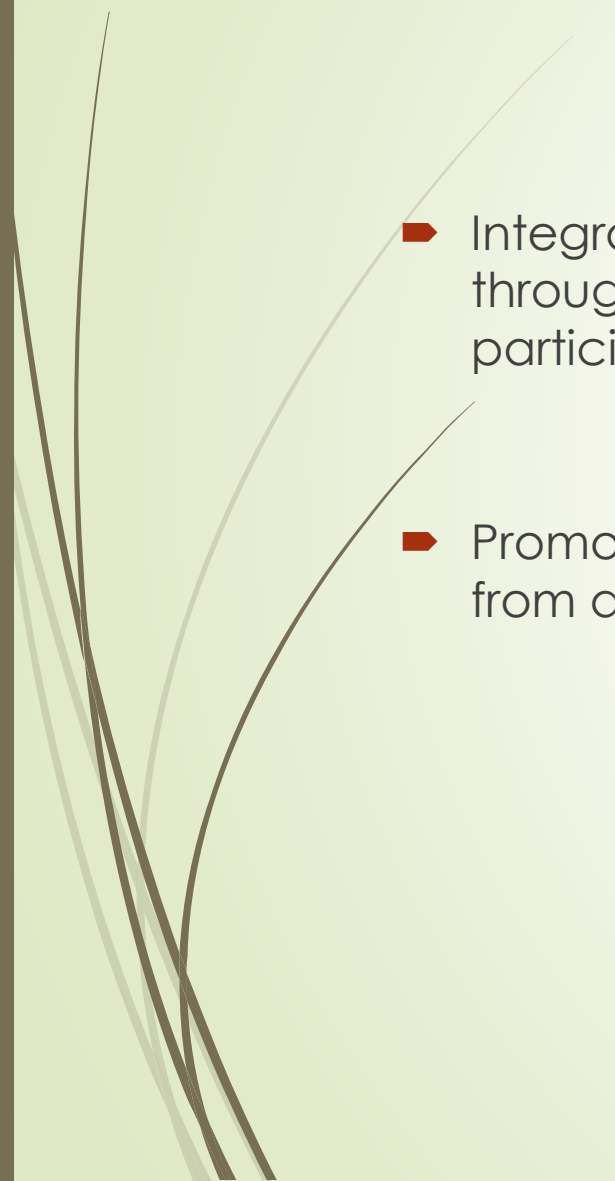


Recommendation

- Leverage smartphone technology as an initial platform for developing and delivering health and well-being programmes.
- Train individuals as coaches to support older adults (emphasis on the 70+ years old) in using digital health programmes at specialised centres (village halls/municipality centres, etc).
- Provide grants or tax incentives to facilitate the purchase of health and wellness equipment across the country.



Future

- Integrate the programmes with digital health and fitness equipment through exergaming platforms to enhance user engagement and participation.
 - Promote the incorporation of regular physical activity into daily routines from an early age to foster lifelong healthy and active lifestyles.
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Session end

Thank You

Questions?

