

All tests completed during the in-person visit are for research purposes only. These measurements are not a clinical diagnosis. Many test results require further analysis and interpretation to be clinically useful.

The data from wearables, including GPS and accelerometer data, presented in this report is partial and will be expanded in our final report.

The MacM3 staff will not send any results directly to your doctor or other health-care or insurance provider.

For more information about the study, please visit our website at [www.macm3.com](http://www.macm3.com); email [macm3@mcmaster.ca](mailto:macm3@mcmaster.ca), or call 905-525-9140 x26894

## PARTICIPANT INFORMATION

<b>Name:</b>	
<b>Date:</b>	

## Physical Tests

**GRIP STRENGTH** – *Grip strength reflects overall muscle strength (higher is better)*

Your Measurement	Best of two (Kg)	
	R	L
Baseline	35.1	28.2
12M follow-up	31.3	25.5

*Reference Values		
MEN	Age Range	Average (Kg)
	65-69	42.7
	70-74	40.7
	75-79	38.0
	≥80	34.7
WOMEN	Age Range	Average (Kg)
	65-69	25.6
	70-74	24.4
	75-79	22.4
	≥80	20.5

**SINGLE-LEG STANCE – A measure of static balance (higher is better)**

Your Measurement	Average (seconds)	
	R	L
Baseline	23.2	20.2
12M follow-up	35.2	29.5

*Reference Values		
MEN	Age Range	Average (seconds)
	65-69	41.7
	70-74	26.7
	75-79	13.1
	80-85	6.3
WOMEN	Age Range	Average (seconds)
	65-69	34.6
	70-74	19.8
	75-79	10.9
	80-85	6.5

**CHAIR RISE – A measure of functional strength (lower is better)**

Your Measurement	Average (seconds)
Baseline	12.1
12M follow-up	12.5

*Reference Values		
MEN	Age Range	Average (seconds)
	65-69	13.2
	70-74	13.3
	75-79	13.7
	≥80	14.2
WOMEN	Age Range	Average (seconds)
	65-69	13.2
	70-74	13.8
	75-79	14.3
	≥80	14.4

**TIMED UP & GO** – *A measure of usual walking speed (lower is better)*

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Your Measurement	Average (seconds)
Baseline	8.9
12M follow-up	9.5

*Reference Values		
	Age Range	Average (seconds)
<b>MEN</b>	65-69	9.2
	70-74	9.5
	75-79	10.0
	80-85	10.8
<b>WOMEN</b>	65-69	9.2
	70-74	9.5
	75-79	10.1
	80-85	10.9

**GAIT SPEED** – *A measure of usual walking speed (higher is better)*

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Your Measurement	Average (meters/seconds)
Baseline	1.14
12M follow-up	1.11

**Reference Values		
	Age Range	Average (meters/seconds)
<b>MEN</b>	60-69	1.34
	70-79	1.26
	80-89	0.97
<b>WOMEN</b>	60-69	1.24
	70-79	1.13
	80-89	0.94

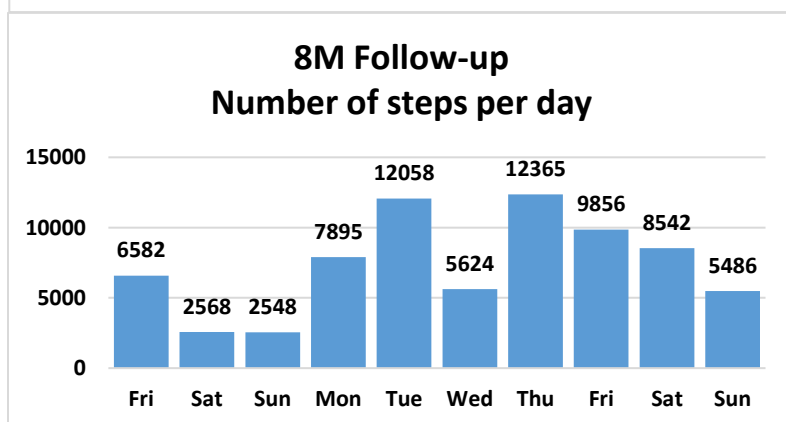
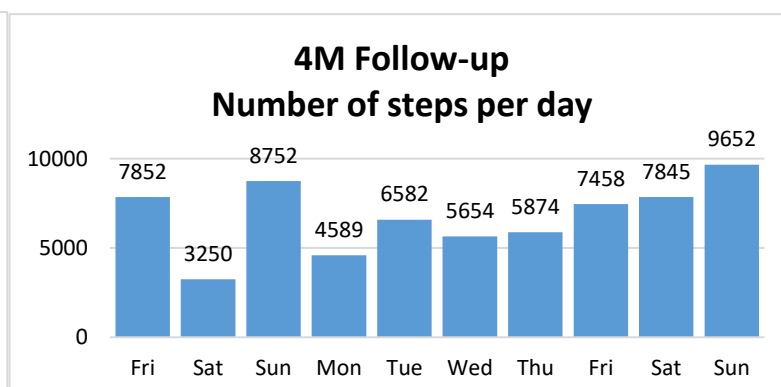
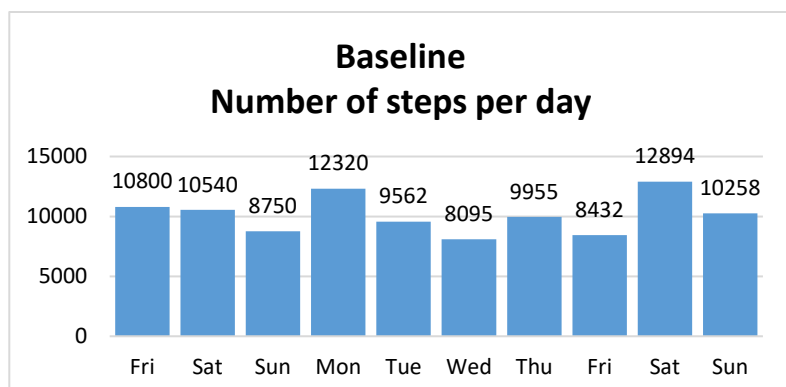
\* Mayhew et al., 2023 (Reference values from the Canadian Longitudinal Study on Aging)

\*\*Bohannon et al., 2011

## Step Count and \*Trips

Variables	Baseline	4M Follow-Up	8M Follow-Up
Start date (yyyy-mm-dd)	2022-01-11	2022-09-09	2023-01-12
Number of days devices worn	10	10	10
Average daily wear time (hh:mm:ss)	13:18:23	13:02:05	14:17:09
Average daily step counts	9135	6751	6804
Average daily number of active trips (walking, biking, etc.)	2.8	2.5	1.0
Average daily number of passive trips (car, bus, train, etc.)	4.0	3.5	2.5

\* In Global Positioning System (GPS) data, a trip refers to a recorded movement from one location to another.

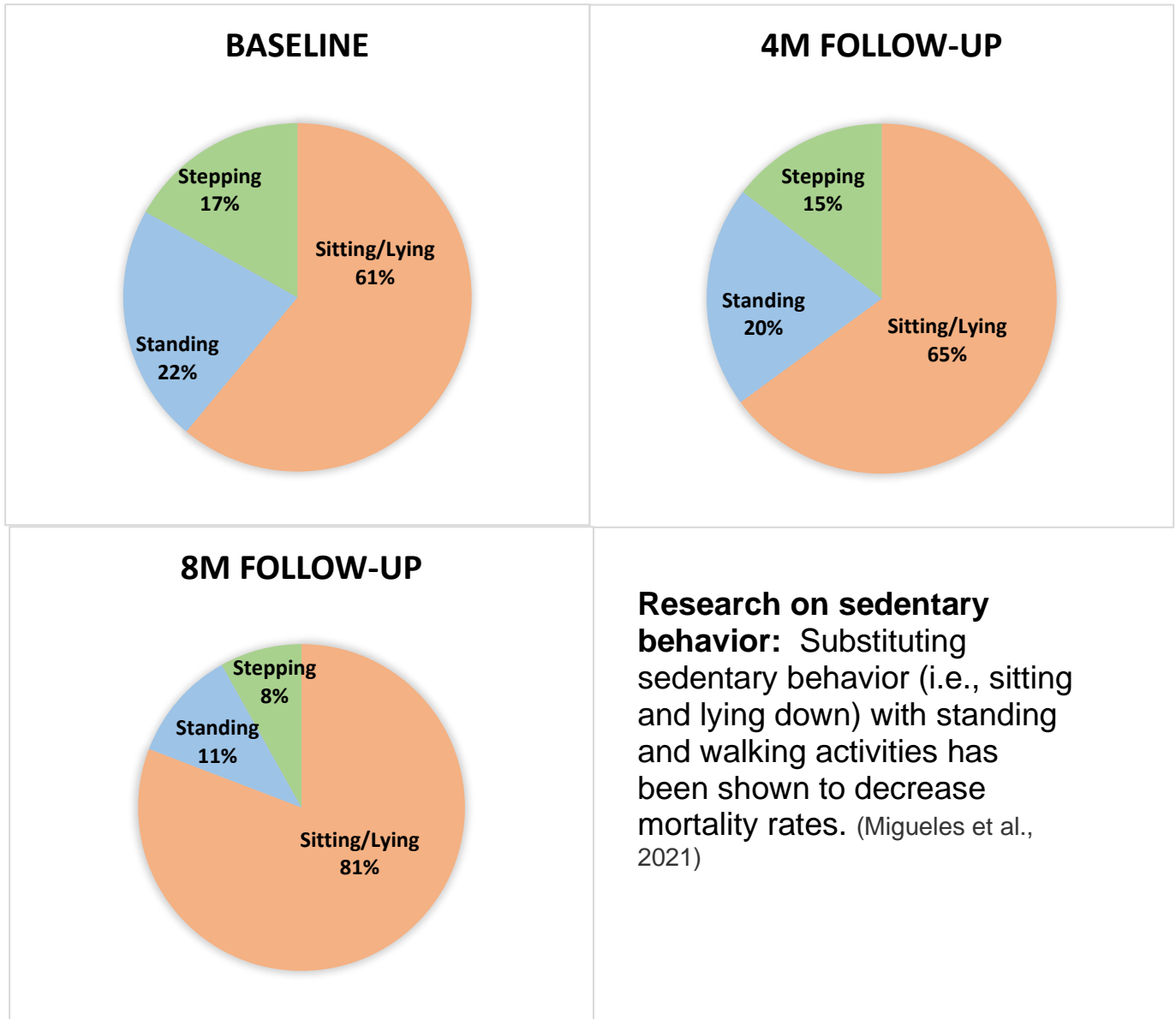


**Research on step counts:** Higher daily step counts are linked to lower hospitalization and mortality rates. (Lee et al., 2019; Cruz et al., 2022)

\* Wrist devices tend to overestimate step counts by 20-25%.

# Sedentary Behavior

The average time spent in sitting, lying down, standing, or stepping postures calculated across the days of data collected.



**Research on sedentary behavior:** Substituting sedentary behavior (i.e., sitting and lying down) with standing and walking activities has been shown to decrease mortality rates. (Migueles et al., 2021)