

Cardiometabolic Disease Prevention: How to Engage, Educate, and Empower Patients for the Long Haul

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What if We Made the Risk Profile More Interactive?

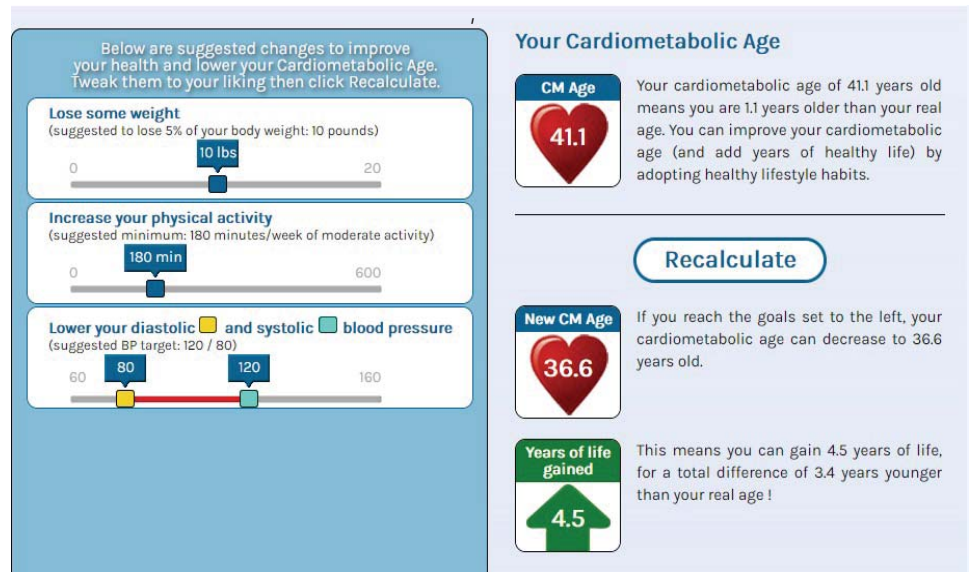
Estimated benefits (40 yo woman) of losing 10 pounds, adding 180 min/wk of physical activity, and reducing blood pressure from 140/90 to 120/80

www.cardiometabolicage.com

Lancet Diabetes Endo 2015
Feb;3(2):114-22.

Years of life lost and healthy life-years lost from diabetes and CVD

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What is MissionVAV?

An 8-year research program among Canadian Veterans and their families

➤ Project team:

- doctors, kinesiologists, dieticians, and psychologists,
- researchers from McGill University
- full-time web-development team
- biostatisticians with expertise in machine learning, and AI



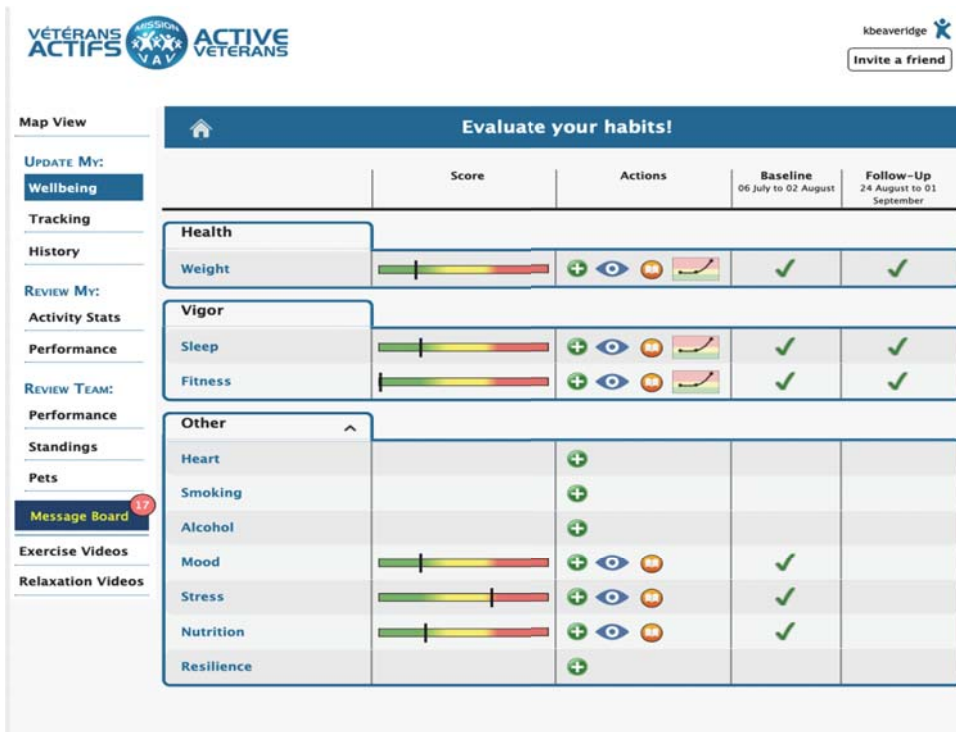
➤ Evaluate the effectiveness of online health promotion

➤ Improve physical activity, healthy eating, stress management, sleep problems, pain management, and social isolation



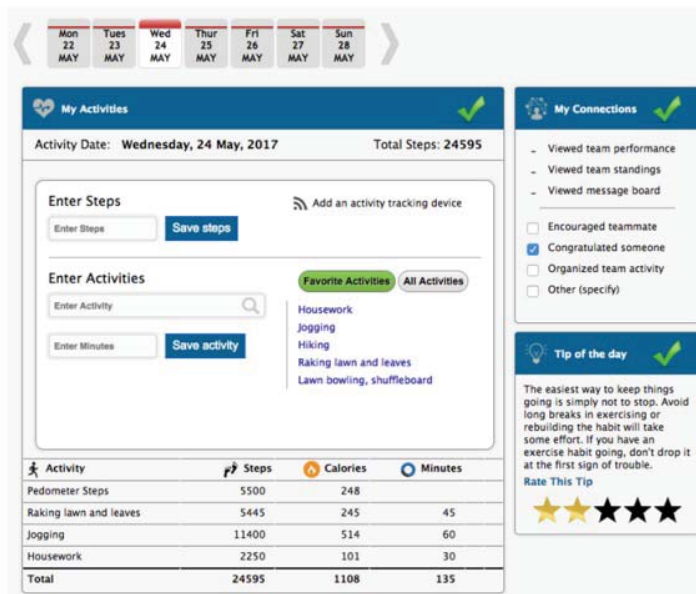
Funded by the Canadian Veterans and Family Wellbeing Fund

Baseline Health Metrics Drive Engagement



- Listen to the Patient
- Suggest...don't lecture
- Use Shared Decision Making to Develop Achievable Goals
- Identify Priorities and Timelines
- Don't let the patient beat themselves up for past, present, or future failures

Tracking Makes a Difference in the Short-Term



Participants can track their daily activities by entering their step count and/or by selecting their activity type (ie. pilates) and time spent doing that activity such that an equivalent step count can be calculated.

Use Stats to Determine if Goals are Being Achieved

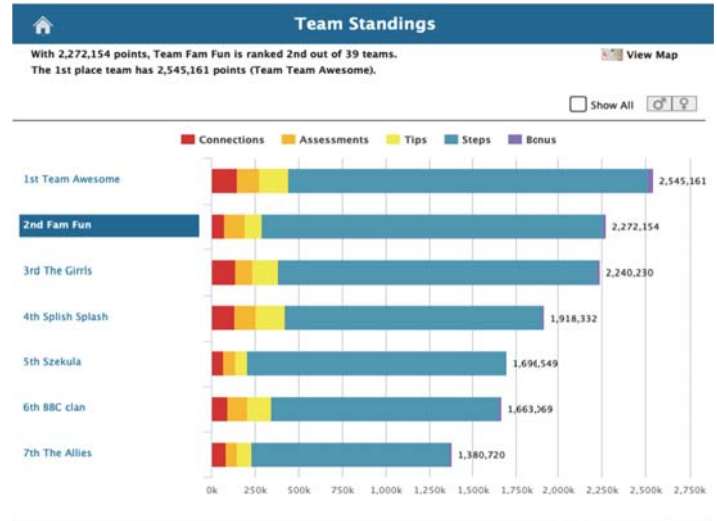
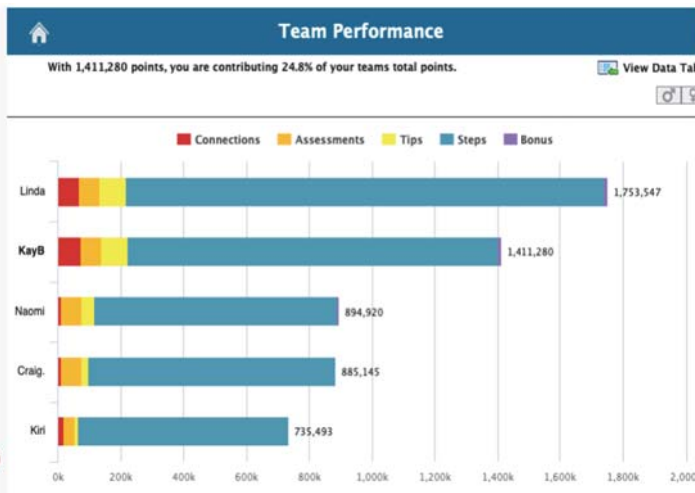


The screenshot shows a 'History' dashboard. It includes a legend for tracking points: a green checkmark for 'Point collected', a yellow triangle for 'Point available', and a red X for 'Missed point'. Below the legend is a table with the following data:

Date	Steps	Tips	Connections
Sunday 30 August	38250	✓	✓
Saturday 29 August	12000	✓	✓
Friday 28 August	29970	✓	✓
Thursday 27 August	32790	✓	✓
Wednesday 26 August	25290	✓	✓
Tuesday 25 August	29040	✓	✓
Monday 24 August	13080	✓	✓

Participants can compare their daily step count to their chosen goal (left) and track which days they logged activities, read the tips and made connections.

Peer Support and Gamification Help Create a Community While Making Behavior Change Fun



Participants can compare their progress to their teammates (left) and that of other teams (right) on the leaderboard.

Drop 5 Mission

Timeline: 10-weeks

Goal: Weight loss of 5 lbs

Weekly:

- Reading modules
- Weight tracking
- Behavioural goals
- Social Connectivity
- Gamification

Week	Topic
Week 1	Weight evaluation and exercise
Week 2	Making health food choices
Week 3	Mindful eating part 1
Week 4	Mindful eating part 2
Week 5	Managing your emotions and food cravings
Week 6	Taking control of your environment
Week 7	Sleep
Week 8	Managing stress
Week 9	How to manage setbacks
Week 10	Bringing it all together

Results After 10 Weeks

Average steps (per day)	11,076 (>5 miles)
Absolute change in weight (kg)	1.31
Percent change in weight	1.60
Lost at least 5 pounds	30%
Averaged at least 5K steps per day	87%
Averaged at least 10K steps per day	47%
Averaged at least 12K steps per day	34%

Health Coaching Makes a Difference

The screenshot shows the 'myhealthcheckup' dashboard. It features a table with columns for User Name, Sex, Age, Last Logon, and various health metrics. The table is color-coded with green, yellow, and red cells. Below the table, there is an email snippet with the following content:

Subject: Eat Well - Week 2
 To: Alexandra
 Date: 26/09/2021 03:36 pm (EDT)

Alexandra, thank you. Very helpful. Jean.

Hi Jean,

This Monday will mark the start of the second week of the Eat Well Mission!

This week you will focus on including more nuts and seeds into your diet! Nuts are wonderful sources of healthy fats and fibre. Try swapping out your granola bar for some roasted nuts!

The handout for this week provides some extra information about serving sizes that will be useful for you this week! It also provides you with nutritional information about different nuts/seeds and gives you some creative ideas on how to incorporate them into your diet!

I hope you are enjoying the Mission so far and do not hesitate to reach out with any questions or concerns!

Alexandra

Weekly emails from medical and psychology students

Early drop-outs declined significantly (from 19% to 7%) while participants remained in the Mission 36% longer (49 vs 36 days). Daily exercise levels also increased by an additional 20%.



Lessons Learned to Date

- Engagement, and Empowerment Trump Education
- Identify Teachable Moments
- Keep Expectations Realistic...both PTs and MDs
- Leverage Proven Techniques:
 - Baseline Assessments to Identify Realistic Goals
 - Shared Decision Making
 - Tracking to Support Change
 - Digital Feedback to Identify What Works
 - Gamification
 - Social Connectivity and Peer Support
- Get Help from Other Health Professionals
- Prepare for Initial Failure
- Never Let PTs Beat Themselves Up