

# Mediq Health Coach Case Study



MEDIQ

*at the heart of healthcare*

# Corporate Social Responsibility

Corporate Social Responsibility is at the heart of what we do at Mediq. Through our CSR strategy, we are committed to the United Nations Sustainable Development Goal 3 (SDG 3): good health and well-being for all. We believe that through developing innovative healthcare solutions, we can contribute to building a better and healthier world. We have translated SDG3 into two strategic goals: health care system strengthening and patient empowerment & well-being. We offer several services that contribute to one, or both, of our goals.

A good example of such an innovation is the launch of the combined lifestyle intervention service: Mediq Health Coach, focused on creating new, healthy habits that last. By launching the Mediq Health Coach, we aim to contribute to people's well-being through change of behaviour.

At Mediq, we use the quadruple aim model\* to determine and measure our societal contribution. This report describes the effects of Mediq Health Coach on all four drivers of the quadruple aim\*\*.

\* Quadruple Aim: improved patient experience, better health outcomes, more satisfied staff experience, and lower cost of care (see Figure 1).

\*\* This report is a summary of the effect evaluation and process evaluation of the Mediq Health Coach performed by an external research agency. Reports are available upon request.



Figure 1: Quadruple aim model



# Introduction

Chronic diseases related to obesity are becoming more prevalent. Additionally, suffering from obesity is negatively affecting the quality of life. An unhealthy lifestyle is the most common reason linked to obesity. To ensure that our health care system remains accessible, high quality and affordable on a global scale, we need to focus on disease prevention and use innovative technologies. Empowering disease prevention can relieve the burden on the health care system, whilst digital innovations can contribute to the efficiency of health care as well as freeing up precious time for health care professionals. For example, by focusing on lifestyle improvement, risks of chronic diseases related to obesity such as diabetes type 2, heart and vascular diseases, joint pain or complaints, and sleep apnoea can be significantly minimised.

**We are convinced that healthcare innovations can help patients adopt healthy lifestyles and prevent or reduce the impact of chronic diseases.**

To help minimise those risks, we have launched Mediq Health Coach – our first combined lifestyle intervention service. With Mediq Health Coach we aim to contribute to patient well-being and decrease the pressure on the health care system. At its core, Mediq Health Coach focuses on building a healthy lifestyle and hypothesises to contribute to the **improved patient experience**, **better health outcomes** and **more satisfied staff experience**. Indirectly, we also aim to **lower cost of care**. With this case study, we want to find evidence for our hypothesis.



# Mediq Health Coach

A stylized graphic of a human figure composed of thick, hand-drawn teal lines. The head is a circle, the torso is a horizontal bar, and the legs are two vertical bars. The lines have a slightly irregular, brush-like texture.

The entire Mediq Health Coach program takes 24 months and consists of an active phase (first six months) and a maintenance phase (next 18 months). After signing up for the program, the participant first selects the preferred lifestyle coach. Subsequently, a live video conversation with the lifestyle coach is arranged. The purpose of this introductory meeting is to draw up a personal plan.

During *the first six months (active phase)*, there are several interactions with the personal lifestyle coach, either through text messages, advisory films, or live videos. Coaching consists of advice and guidance with diet, exercise, sleep, relaxation and behavioural change. All focused on creating new habits and a healthy lifestyle that last.

The *maintenance phase* is developed to enable the new healthy lifestyle to be fully adopted. During this phase, guidance by the personal lifestyle coach remains available, although less frequent. Mediq Health Coach is a fully reimbursed program in the Netherlands and available for people who are obese or overweight with an overweight-related risk of sleep apnoea or diabetes type 2, for example.

# Method

## Procedure

To study the effect of the Mediq Health Coach program (active phase) on **patient experience** and **patient health outcomes**, we asked patients who were enrolled in the Mediq Health Coach program to participate in this study. To study the effect of the Mediq Health Coach program on **staff experience**, we approached health care professionals working with Mediq Health Coach program to participate. In this study, Health Care Professionals were defined as lifestyle coaches, general practitioners who prescribe the Mediq Health Coach, or nurses working at the prescriber's practice.

Once the patients had agreed to participate, we sent them a questionnaire, assessing **patient experience** and **health outcomes**. The first questionnaire was sent before enrolment in the program (baseline measure), while the second was sent six months after enrolment. In addition, we extracted anonymised user data from the application to assess health outcomes both at baseline and after six months of participation. Furthermore, with a select group of patients, semi-structured interviews were conducted six months after enrolment, to assess **patient user experience**. Once general practitioners agreed to participate in this study, we scheduled semi-structured interviews to assess **staff experience**.

## Participants

The Mediq Health Coach program is available for people who struggle with obesity or are overweight with a related risk of sleep apnoea or diabetes, for example. Patients enrolled in the program were between 45 – 64 years of age, and equally distributed in terms of gender. At baseline, 81 participants, and at six months 33 participants, completed the questionnaires. Six patients also participated in the interviews, while nine health care professionals participated: one general practitioner, three nurses, and four lifestyle coaches.

## Outcome measures

**Patient experience** was determined with a quality of life questionnaire and a semi-structured user experience

interview. **Health outcomes** were determined based on the user health data and a lifestyle questionnaire. **Staff experience** was determined with a semi-structured interview assessing user experience (see Figure 2). **Lower cost of care** was not directly assessed, although the lowered cost of care can be indirectly assumed through the relationship between improved health outcomes and prevented chronic diseases.

## Analyses

To investigate whether there are significant effects from following the Mediq Health Coach program, we statistically compared the baseline measures with measures at six months. Information gathered during the interviews is described in a qualitative manner.

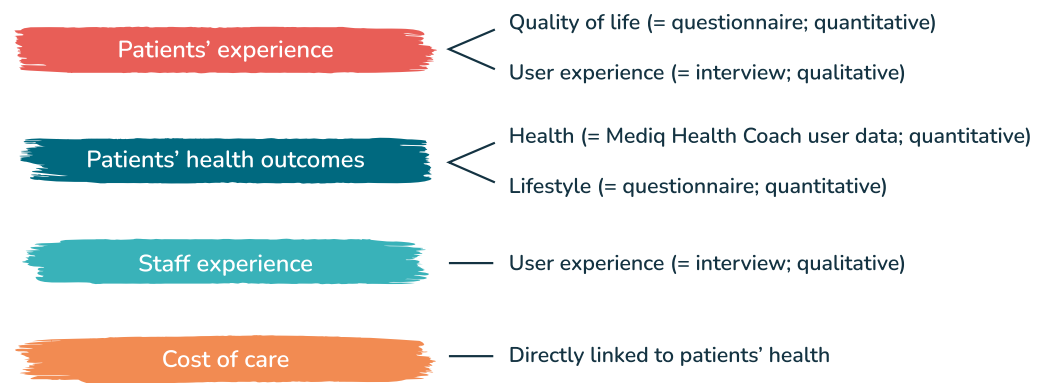


Figure 2: overview of outcome measures and assessment method

# Results

## Patient experience

Patient experience was determined by self-perceived health, fitness, and quality of life. At baseline, 37% of the participants experienced poor to mediocre health, 54% bad to mediocre fitness and 10% bad to mediocre quality of life. At six months, 24% of the participants indicated better experienced health, 33% improved fitness and 15% improved quality of life. These results were not significant (see Table 1 for detailed information).

Patients expressed their satisfaction with the Mediq Health Coach program, with an average rate of 7.6 (on a 1 – 10 scale). The digital format as well as the content were perceived positively. Patients mainly referred to the program as a good incentive to adopt a healthier lifestyle. Patients reported the following features as contributing to their positive experience: all information entered in the program is shared with the lifestyle coach, daily push notifications, and the lifestyle coach’s encouragement to adopt a healthier lifestyle rather than weight loss. Furthermore, patients highly appreciated the self-directive nature of the program. For example, they said that they appreciated the option to be able to select a personal lifestyle coach, as well as the flexibility involved (no strict attendance schedules), creating a sense of autonomy.

**Patient about reaching their goals:**  
 “Yes, Mediq Health Coach absolutely contributes. Before, I used to eat everything with a sauce. Now I don’t take sauces anymore, so I consume a lot less salt. Weight loss is not progressing very fast, but healthy eating has improved. My food tastes better.”

**Patient about contributing to the program:** “Having committed to contribute to the program I am working on my goals and entering the data. There are no negative consequences if you don’t enter your data, but I made the commitment, so I do it. The push notifications you receive each day also help.”

	Baseline	Six months	Difference
Health	2.6 (0.7)	3.0 (0.5)	0.2 (0.6)
Fitness	2.3 (0.7)	2.7 (0.6)	0.2 (0.7)
Quality of life	3.1 (0.8)	3.2 (0.5)	-0.1 (0.7)

Table 1: *Patient experience*. Average (standard deviation) of self-perceived health, fitness, and quality of life at baseline, six months and difference between baseline and six months. Self-reported experience of health and fitness improved, while self-perceived quality of life decreased slightly. These changes were not significant.



## Results

### Patient health

Patient health was determined by BMI, blood pressure, and waist and hip circumference. At baseline, the average weight was 104 kg, average BMI was 34.4 kg/cm<sup>2</sup>, average waist circumference was 109.8 cm, average hip circumference was 118.2 cm, and average blood pressure was 130.7 mmHg (systolic) over 82.0 mmHg (diastolic). After six months of following the Mediq Health Coach program, weight and BMI significantly decreased. The other outcomes also decreased, although not significantly. See Table 2 for detailed information.

Furthermore, lifestyle was assessed based on movement and food intake behaviour. Compared to a baseline, the average number of days participants performed intense or moderate exercise increased, although this result is not significant. Self-reported healthy food intake did not change compared to baseline.

	Average decrease (SD)
Weight (kg)	-5.3 (5.0)**
BMI (kg/cm <sup>2</sup> )	-1.7 (1.6)**
Systolic blood pressure (mmHg)	-5.3 (18.7)
Diastolic blood pressure (mmHg)	-3.1 (6.6)
Waist circumference (cm)	-5.9 (10.6)
Hip circumference (cm)	-2.8 (9.8)

### Staff experience

Health care professionals rated the Mediq Health Coach program with a 7.8 (on a 1-10 scale). All health care professionals said that the program contributes to a healthier lifestyle of their patients. They described the digital application linked to the program as user friendly and technically well designed.

The health care professionals also appreciated the easy accessibility of the program and related information. They felt they were able to promote healthy lifestyle changes, which is much more rewarding and helpful to their patients compared to promoting weight loss goals.

#### Lifestyle coach:

“An important role for the coach is to motivate and stimulate the patient. Sometimes, people lack motivation to register their data in the application. The lifestyle coach can really play a crucial role here, because we can see if a participant stops registering.”

Table 2: Patient health. Average decrease (standard deviation) between baseline and six months of weight, BMI, systolic blood pressure, diastolic blood pressure, waist circumference, hip circumference. \*\* = significant ( $p < 0.05$ ).

# Conclusion

In this study, we assessed the effects of the Mediq Health Coach program on: **patient experience**, **patient health outcomes** and **staff experience**. We've expected the program to improve patient experience, improve health outcomes and improve staff experience. Through the direct relation between improved patient health and decreased chronic diseases, we've assumed that **cost of care** will decrease if patient health outcomes improve.

Following the program resulted in an average weight loss of six kilograms after six months. Other indicators of health and patient experience also proved to be positively (however not significantly) affected by the program. Furthermore, patients and health care professionals said they were very satisfied with the program, both the digital form and the content of the program. Overall, both patients and health care professionals said that the program contributed to an improved lifestyle.

By launching the Mediq Health Coach, we aimed to contribute to improved patient experience, improved patient health, and improved staff experience. By making the Mediq Health Coach available to patients, we aimed to have improved people's well-being through change of behaviour. This might ultimately lead to decreased cost of care.





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