Primary prevention of cardiovascular disease: evaluation of an individual-based strategy
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Chapter 9

Effects on cardiovascular disease risk of a web-based health risk assessment with tailored health advice: a follow-up study

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ABSTRACT

Introduction
A large proportion of the cardiovascular disease (CVD) burden can potentially be prevented by primary prevention programs addressing major causal risk factors. Web-based health risk assessment (HRA) with tailored feedback for individual health promotion is a promising strategy. We evaluated the effect on CVD risk of such a program among employees of a Dutch worksite.

Methods
We conducted a prospective follow-up study among 368 employees who voluntarily participated in a web-based HRA program at a single Dutch worksite in 2008. The program includes a multi-component HRA through a web-based electronic questionnaire, biometrics and laboratory evaluation. Results are combined with health-behavior-change theory to generate tailored motivating and educating health advices. Upon request, a health counseling session with the program physician is available. Follow-up data on CVD risk were collected one year after initial participation. The primary outcome was the change in Framingham CVD risk at 6 months relative to baseline. We checked for a possible background effect of an increased health consciousness as a consequence of program introduction at the worksite by comparing baseline measurements of early program participants with baseline measurements of participants who completed the program six months later.

Results
A total of 176 employees completed follow-up measurements after mean 7 months. There was a graded relation between CVD risk changes and baseline risk, with a relative reduction of 17.9% (p=0.001) in the high-risk category (baseline CVD risk ≥ 20%). Changes were not explained by additional health counseling, medication or an increase in health consciousness within the company.

Conclusions
Voluntary participation in a web-based HRA with tailored feedback at the worksite reduced CVD risk by nearly 18% among participants at high CVD risk and nearly 5% among all participants. Web-based HRA could improve CVD risk in similar populations. Future research should focus on persistence of the effects underlying the CVD risk reduction.
Keywords primary prevention, health risk assessment, cardiovascular disease risk.
INTRODUCTION

Cardiovascular disease (CVD) represents the majority of chronic disease burden in Europe.(1) Major causal risk factors include unhealthy diet, physical inactivity, smoking, high blood pressure, dyslipidaemia, high plasma glucose and overweight.(2;3) The CVD burden could be greatly reduced by adequately addressing these risk factors.(4) The health risk assessment (HRA) is one of the most widely used strategies in primary prevention of CVD. The worksite has been proposed as a suitable platform for such programs, with the advantage of cost savings, the creation of a health-conscious environment and easier follow-up of high-risk individuals.(5;6) The traditional HRA screened for risk factors to produce feedback that predominantly contained information on the assessed risk.(7) However, reviews of the literature did not always support effectiveness of the traditional HRA.(7;8) It was theorized that HRA with feedback that merely contains risk information would be insufficient to promote health.(9) The impact of the traditional HRA also remained unsatisfying as a consequence of suboptimal delivery due to resource constraints, limited access to high risk populations and lack in uniformity.(7;8) It was acknowledged that impact of HRA programs could be enhanced by web-based delivery of the HRA, with incorporation of tailored health advices, aiming to reduce disease risk.(9-12)

In the present study we evaluated CVD risk changes among employees who voluntarily participated in a web-based HRA including tailored feedback, offered to them by their employer as part of a worksite health management program. The HRA was designed to collect data that are necessary to screen for the risk of a number of preventable diseases, including CVD, and provide tailored feedback to educate, motivate and empower participants in CVD risk reduction. The primary aim was to measure whether CVD risk was improved after participation in the program at a Dutch worksite.

MATERIALS AND METHODS

Study setting, design and flow

We conducted a prospective follow-up study among employees of a Dutch company in the services sector, who voluntarily completed a web-based HRA including tailored feedback. The HRA was applied as part of the worksite health management program in the company in 2008. During this period 2149 employees were invited to complete the HRA. E-mail invitations were sent by the human resources department, with a single reminder after 2 weeks. Employees were informed that participation was voluntary, at no cost, that all personal data would be treated confidentially, and that no results would be shared with their employer or any other party. Before invitation employees were divided in an early (n=1108) and late (n=1041) invitation group, based on date of birth (figure 1). The early invitation group was invited immediately to participate in the HRA. Employees of the early invitation group who completed the HRA and received their tailored health advices were re-invited for follow-up measurements, six months after completion. They were not informed about follow-up measurements until the moment of re-invitation. Employees of the late invitation group were invited six months after the early invitation group was invited. Their baseline measurements were used to assess potential changes in CVD risk factor levels as a
A consequence of company-wide changes in health-consciousness. If present, these temporal changes would lead to overestimation of the effects of the HRA program. The study was approved by the Medical Ethics Committee of the Academic Medical Center in Amsterdam.

Figure 1. Study flow.
Notes: The HRA program was applied as part of the worksite health management program in a Dutch company worksite in 2008. During this period 2149 employees were invited to complete the HRA. Employees were divided by day and month of birth in an early and late invitation group. Early invitees who participated in the HRA program were invited for follow-up measurements, six months after the initial program invitation. At that same time the late invitation group was invited for their initial participation. The primary outcome was the change in CVD risk between baseline and follow-up among 176 early participants. To account for time trends, baseline variables between early and late participants were compared. Nonresponse bias was checked by comparing baseline values of 176 early participants who attended follow-up with 192 who did not.
**Study intervention: web-based health risk assessment with tailored feedback**

The studied program consists of 1) a multi-component web-based HRA and 2) individually tailored health advices, presented to participants as a web-based health action plan. The HRA includes A) a web-based electronic questionnaire, B) biometric evaluation, and C) laboratory evaluation, targeting chronic disease risk, including CVD. Biometrics and collection of samples for laboratory evaluation are conducted by a licensed occupational health services provider. Results of the assessment are translated in low, intermediate or high-risk profiles for the targeted disorders. By computer-based combination of the risk profiles with health-behavior concepts, individually tailored health advices are generated. Underlying health-behavior concepts include the transtheoretical model (13), protection motivation theory,(14) and social cognitive theory,(15) The web-based health action plans address health-behavior (physical activity, smoking cessation, alcohol intake, dietary habits) and include referral for further evaluation and treatment for those at high CVD risk. Risk factor cut-off values are based on the European and Dutch guidelines for cardiovascular risk management.(16;17) Upon request participants can schedule a 30 minute health counseling session with the program physician.

**Baseline measurements**

In the present study all early and late participants completed the web-based electronic questionnaire as part of their HRA. The questionnaire included socio-demographics, family history of cardiovascular disease, personal medical history, current treatment and current lifestyle. Physical activity was measured with the Dutch version of the International Physical Activity Questionnaire.(18) Dietary habits and alcohol consumption were measured according to the standard nutrition and alcohol consumption questionnaire of the Dutch Municipal Health Service.(19) Smoking behavior was measured with the Dutch Expert Center on Tobacco Control questionnaire.(20) The questionnaire also addressed the health behavior change stage according to the transtheoretical model.(13) This model suggests that changes in health behavior appear in six phases from pre-contemplation (not intending to take action in the foreseeable future), contemplation (intending to change in the next 6 months), preparation (intending to take action in the next month), action (have made specific overt lifestyle modifications within the past 6 months), to maintenance (working to prevent relapse) and termination (is sure not to return to an old unhealthy habit). The health advices contained in the health plans were computer-tailored to the stage of change of the participant.

All early and late participants in the HRA also visited the worksite occupational health service for measurement of height, weight, waist circumference and blood pressure. During the visit non-fasting blood and urine samples were collected for analysis of total cholesterol, LDL-cholesterol, HDL-cholesterol, triglycerides, glucose, creatinin, and urinary albumin to creatinin ratio. Blood pressure was measured twice with a two minute interval on the left arm using an automated device (Omron M4, Omron Corp, Tokyo, Japan), after the subject had been sitting quietly for at least 5 minutes. Height was measured to the nearest centimeter and weight to the nearest 0.5 kilogram, wearing indoor clothing, without shoes and emptied pockets. A correction of 1 kilogram was applied in calculations. Waist circumference was measured with a centimeter tape, in the middle between the pelvic edge and lower rib. Collected samples were sent to a certified laboratory. Serum was centrifuged at 3000 G for 10 minutes prior to
transportation. All procedures were performed by trained nurses. The blood sample was analyzed using enzymatic kits (Roche Diagnostics).

Follow-up measurements
The early participants were re-invited for follow-up measurements six months after they completed their baseline HRA and received their tailored health advices. Invitations for follow-up measurements were sent by e-mail with one reminder, by the study physician of the Academic Medical Center - University of Amsterdam. A follow-up visit was scheduled for measurements of weight, waist circumference blood pressure and non-fasting total cholesterol, LDL-cholesterol, HDL-cholesterol and triglycerides. The employees were informed on their follow-up results by the study physician.

Outcomes and data analysis
The primary outcome was the percentage change in Framingham score at six months relative to baseline. The Framingham score estimates CVD mortality and morbidity risk by combining age, sex, blood pressure, hypertension treatment status, total cholesterol, HDL-cholesterol, smoking and diabetes status. CVD risk changes were also studied in low, intermediate and high-risk subgroups, defined as CVD risk <10%, ≥10% to 20% and ≥20%. Secondary outcomes were changes in single risk factor levels at six months relative to baseline. For comparisons between baseline and follow-up paired t-tests were used for continuous variables and McNemar for dichotomous variables. Analysis of variance was used to study CVD risk changes over the three CVD risk subgroups. Participants with known CVD (coronary heart disease, myocardial infarction, peripheral arterial disease, heart failure and stroke) were excluded from the primary outcome analysis. In addition, changes in CVD risk and single risk factor levels were compared between participants who had a voluntary health counseling session additional to their web-based health plan and those who did not, using chi-squared tests. Nonresponse bias was checked by comparing differences in baseline values between early participants who attended for follow-up measurements and those who did not, using unpaired t-tests for continuous and chi-squared tests for dichotomous variables. These comparisons were adjusted for age and gender differences by linear and logistic regression analysis. Finally, to account for temporal trends in health consciousness as a consequence of program introduction at the worksite, baseline variables between early and late participants were compared. In these analyses unpaired t-test were used for continuous and chi-squared tests for dichotomous variables. Data were analyzed using SPSS 17 for Windows.

RESULTS

Of the 1108 early invited employees, 368 (33%) participated in the web-based HRA program, compared to 404 (39%) of the 1041 late invited employees. Of the early participant group of 368 employees, 176 (48%) attended for follow-up measurements at the mean follow-up time of 7 months. Table 1 summarizes all baseline values. Early participants who attended follow-up were older than those who did not (46 vs. 43 years, p<0.001), had a higher CVD risk (10.2% vs. 7.5%, p<0.001), and had a higher systolic blood pressure (134.6 vs. 131.0 mmHg, p=0.049). After
adjustment for sex and age, there were no differences between employees who attended for follow-up measurements and those who did not attend in health characteristics (see adjusted p-values in Table 1).

Table 2 shows the change in CVD risk at follow-up relative to baseline. Among employees with a baseline risk of $\geq 20\%$, CVD risk decreased 17.9\% (95\% CI -27.7\% to -8.2\%, p=0.001). Among employees with a baseline CVD risk of $\geq 10\%$ to $20\%$, CVD risk decreased 4.4\% (95\% CI -10.6\% to 1.7\%, p=0.155). Among employees with a CVD risk $< 10\%$, there was a decrease in CVD risk of 2.5\% (95\% CI -8.1\% to 3.1\%, p=0.376). The linear term in analysis of variance of the relative change in CVD risk score was statistically significant different between employees in the three CVD risk categories (p=0.014).

Among the follow-up attendees 49 employees requested a voluntary health counseling session with the program physician after receiving their health plan, whereas 127 employees did not. Seven employees were referred to their primary care physician for treatment of high blood pressure. In two cases the primary care physician started pharmacologic treatment and in five cases an existing treatment regimen was changed. The total number of employees on blood pressure medication increased non-significant from 14 (8\%) at baseline to 16 (9\%) at follow-up. Treatment with statins was not initiated for any employee. There were no statistically significant differences in changes in Framingham risk between employees who had health counseling and those who did not.

Table 3 summarizes the changes in single risk factor levels. Systolic blood pressure was reduced by 5.0 mmHg (p<0.001), HDL-cholesterol increased by 0.1 mmol/l (p<0.001) and waist circumference reduced by 2.0 cm (p<0.001). Changes in number of smokers, body mass index and diastolic blood pressure were not statistically significant. There was a slight but statistically significant increase in total cholesterol with 0.2 mmol/l (p<0.001) and triglycerides with 0.1 mmol/l (p=0.025).

Early and late participants were similar in age, sex, education, ethnicity, medical history and medication use at baseline (see right panel of table 1). Baseline systolic blood pressure of late participants was 3.3 mmHg lower than that of early participants and diastolic blood pressure was 2.5 mmHg lower. Framingham risk scores were however similar between early and late participants.

**DISCUSSION**

We observed a significant decrease in CVD morbidity and mortality risk among employees at a single Dutch worksite, who voluntarily completed a web-based HRA and received tailored health advices, as measured by Framingham scores after 7 months. There was a graded relation between CVD risk reduction and baseline CVD risk. The decrease was highest among those at greatest risk, with a 17.9\% relative reduction in the high-risk subgroup, and lower among those at intermediate and low risk.

The reduction in CVD risk was mainly due to reduced systolic blood pressure (-5.0 mmHg reduction), whereas no beneficial effects were found for total cholesterol, triglycerides and LDL-cholesterol. Since the observed beneficial changes were not explained by additional health counseling, referral to primary care physicians or medication, and given that improvements in physical activity and diet can be effective in both reducing blood pressure...
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and increasing HDL,(22-25) we believe that the observed effect is explained by lifestyle improvements induced by the individualized advices that each participant received.

A number of systematic reviews showed that multi-component prevention programs delivered at the worksite reduced CVD risk factors.(26-28) The greatest effect appeared in those at greatest risk, in accordance with our findings.(26) Few studies used global CVD risk as outcome measure for effectiveness of multi-component risk factor intervention programs. These studies reported global risk reductions ranging from 2% to 14%, which are consistent with our findings.(29-33) The design of our study enabled us to check for temporal trends as a consequence of program introduction at the worksite. We found that mean systolic blood pressure and diastolic blood pressure were lower among late participants when compared to early participants. This suggests a background effect of an increased health consciousness within the company, possibly as a consequence of program introduction. However, the mean overall CVD risk score was similar in early and late participants. Moreover, the proportion of participants at high systolic or diastolic blood pressure was also not different in the two groups. Therefore, although a background effect cannot be ruled out completely, its magnitude is marginal.

Our study has several limitations. First, participation in the studied HRA program was voluntary, with participation rates of 33% among the early participants and 39% among the late participants. Studies that evaluated HRA or health promotion programs reported participation rates from 20% to 76%,(34;35) with the general impression that females, older employees, and mainly the worried well are attracted.(36) Although the participation rate in this study was as expected, we cannot rule out that among non-participants in the HRA program there were employees with more or less favorable health characteristics. Furthermore, of the early participants who were eligible for study measurements about half completed follow-up. However, after adjustment for differences in age and gender, there were no differences between follow-up attendees and non-attendees. Therefore, we believe that the outcomes of our study are not skewed by selection and are valid among employees who voluntarily participated in the HRA program. Second, ideally CVD risk in late participants would also have been measured six months before the beginning of their program. In this way their measurements could have served as a rigorous control for early participants. Unfortunately we were not able to do an early measurement in late participants. Nevertheless, the absence of a clinically relevant background effect supports the conclusion that the differences observed in the early participants can be attributed to participation in the program. Third, we did not have data on whether employees regularly visited their primary care physician outside the HRA program. Although additional physician counseling after tailored feedback within the program did not influence Framingham risk, we cannot completely rule out that some improvements could be from usual primary care management and not from the HRA. Finally, participants in the program were pre-dominantly well educated male employees. Therefore our findings may be applicable only to comparable populations. However, since the impact of the HRA program was proportional to the absolute level of CVD risk, the program may be more effective in other, less educated populations.

In summary, voluntary participation in a web-based HRA with tailored feedback at the worksite reduced CVD morbidity and mortality risk by nearly 18% among participants at high-risk for CVD and nearly 5% among all participants. It is important to note that this risk reduction is
realized with an easy to replicate, low-cost, web-based delivered program, mostly with motivating and educating health advices and without initiation of pharmacologic therapy. Future research should focus on the persistence of these effects.
<table>
<thead>
<tr>
<th></th>
<th>EARLY PARTICIPANTS (n=368)</th>
<th>LATE PARTICIPANTS (n=404)</th>
<th>p*</th>
<th>p‡</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With follow-up</td>
<td>Without follow-up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean age (years)</td>
<td>46 ± 7.8</td>
<td>43 ± 7.4</td>
<td>&lt; 0.001</td>
<td>45 ± 7.8</td>
</tr>
<tr>
<td>Male sex</td>
<td>142 (81%)</td>
<td>154 (80%)</td>
<td>0.909</td>
<td>296 (80%)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>21 (12%)</td>
<td>16 (8%)</td>
<td>0.311</td>
<td>37 (10%)</td>
</tr>
<tr>
<td>middle</td>
<td>49 (28%)</td>
<td>45 (24%)</td>
<td>0.942</td>
<td>94 (26%)</td>
</tr>
<tr>
<td>high</td>
<td>106 (60%)</td>
<td>131 (66%)</td>
<td></td>
<td>217 (64%)</td>
</tr>
<tr>
<td>History of CVD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current medication for hypertension</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current statin use</td>
<td>8 (7%)</td>
<td>11 (7%)</td>
<td>0.608</td>
<td>0.121</td>
</tr>
<tr>
<td>Current diabetes medication</td>
<td>3 (2%)</td>
<td>4 (2%)</td>
<td>1.000</td>
<td>0.557</td>
</tr>
<tr>
<td>Current smoking</td>
<td>27 (15%)</td>
<td>32 (17%)</td>
<td>0.729</td>
<td>0.729</td>
</tr>
<tr>
<td>Systolic Blood Pressure (mmHg)</td>
<td>134.6 ± 16.44</td>
<td>137.0 ± 15.81</td>
<td>0.049</td>
<td>0.176</td>
</tr>
<tr>
<td>Diastolic Blood Pressure (mmHg)</td>
<td>81.3 ± 10.90</td>
<td>79.8 ± 10.36</td>
<td>0.162</td>
<td>0.922</td>
</tr>
<tr>
<td>Body Mass Index (kg/m²)</td>
<td>25.3 ± 3.37</td>
<td>25.3 ± 3.68</td>
<td>0.967</td>
<td>0.733</td>
</tr>
<tr>
<td>Waist circumference (cm)</td>
<td>90.7 ± 10.88</td>
<td>92.6 ± 10.31</td>
<td>0.046</td>
<td>0.698</td>
</tr>
<tr>
<td>Total cholesterol (mmol/l)</td>
<td>5.7 ± 1.00</td>
<td>5.6 ± 0.94</td>
<td>0.113</td>
<td>0.988</td>
</tr>
<tr>
<td>HDL (mmol/l)</td>
<td>14.5 ± 3.05</td>
<td>14.0 ± 3.07</td>
<td>0.484</td>
<td>0.215</td>
</tr>
<tr>
<td>LDL (mmol/l)</td>
<td>36.8 ± 8.86</td>
<td>35.7 ± 8.09</td>
<td>0.083</td>
<td>0.178</td>
</tr>
<tr>
<td>Triglycerides (mmol/l)</td>
<td>162 ± 98</td>
<td>157 ± 92</td>
<td>0.238</td>
<td>0.448</td>
</tr>
<tr>
<td>Framingham 10 year CVD risk score (%)</td>
<td>70.2 ± 35.50</td>
<td>75.6 ± 66.50</td>
<td>0.001</td>
<td>0.822</td>
</tr>
</tbody>
</table>

Notes: Values are expressed as mean ± SD or number of participants (%). p* for difference in baseline value between early participants with and without follow-up for selection analysis. Analyses for differences in baseline systolic and diastolic blood pressure, body mass index, waist circumference, total cholesterol, HDL, LDL, triglycerides, and Framingham scores were adjusted for age and sex using linear regression with the variable of interest as dependent variable and age, sex, and attending for follow-up measurements as covariates. Analyses for differences in history of CVD, current medication for hypertension, current statin use, current diabetes medication, current smoking, systolic blood pressure ≥ 140 mm Hg, and diastolic blood pressure ≥ 90 mm Hg were adjusted for age and sex using logistic regression with the variable of interest as dependent variable and age, sex, and attending for follow-up measurements as covariates. p‡ for difference in baseline value between early and late participants for time trend analysis. Participants with a known history of CVD were excluded from the Framingham risk analysis.

Abbreviations: BP, blood pressure; CVD, cardiovascular disease; HDL, high-density lipoprotein; LDL, low-density lipoprotein; SD, standard deviation.
Table 2. Changes in CVD risk among employees who voluntarily participated in the web-based HRA and attended follow-up measurements at mean 7 months.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>CVD risk (%) at baseline</th>
<th>CVD risk (%) at follow-up</th>
<th>Relative change</th>
<th>p</th>
<th>p'</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVD risk changes in all study participants</td>
<td>170d</td>
<td>10.2 ± 8.55</td>
<td>9.4 ± 7.97</td>
<td>-4.9 (-8.9 to -0.9)</td>
<td>0.017</td>
<td></td>
</tr>
<tr>
<td>Framingham 10-year CVD risk ≥ 20%</td>
<td>21</td>
<td>28.4 ± 7.63</td>
<td>23.7 ± 10.61</td>
<td>-17.9 (-27.7 to -8.2)</td>
<td>0.001</td>
<td>0.014</td>
</tr>
<tr>
<td>Framingham 10-year CVD risk 10% to &lt;20%</td>
<td>43</td>
<td>13.6 ± 2.74</td>
<td>13.0 ± 3.65</td>
<td>-4.4 (10.6 to 12)</td>
<td>0.155</td>
<td></td>
</tr>
<tr>
<td>Framingham 10-year CVD risk &lt;10%</td>
<td>106</td>
<td>5.2 ± 2.77</td>
<td>5.1 ± 3.29</td>
<td>-2.5 (-8.1 to 3)</td>
<td>0.376</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Values are expressed as mean CVD risk score percentage ± standard deviation and mean relative differences in percentages. *Relative difference in value between follow-up and baseline (95% confidence interval). **p for effects within category. ***p from linear term in analysis of variance. dSix participants with a known history of CVD were excluded from the analysis.

Table 3. Changes in risk factors among employees who voluntarily participated in the web-based HRA and attended follow-up measurements at mean 7 months.

<table>
<thead>
<tr>
<th></th>
<th>At baseline</th>
<th>At follow-up</th>
<th>Change</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current smoking</td>
<td>27 (15%)</td>
<td>22 (13%)</td>
<td>-5</td>
<td>0.060</td>
</tr>
<tr>
<td>Systolic Blood Pressure (mmHg)</td>
<td>134.6 ± 16.64</td>
<td>129.6 ± 14.93</td>
<td>-5.0 (-6.8 to -3.3)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Diastolic Blood Pressure (mmHg)</td>
<td>81.3 ± 10.90</td>
<td>81.1 ± 9.78</td>
<td>-0.2 (-1.1 to 0.8)</td>
<td>0.392</td>
</tr>
<tr>
<td>Body Mass Index (kg/m²)</td>
<td>25.3 ± 3.37</td>
<td>25.2 ± 3.38</td>
<td>-0.1 (-0.2 to 0.0)</td>
<td>0.161</td>
</tr>
<tr>
<td>Waist circumference (cm)</td>
<td>92.7 ± 10.88</td>
<td>90.7 ± 10.63</td>
<td>-2.0 (-2.7 to -1.4)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Total cholesterol (mmol/l)</td>
<td>5.7 ± 0.99</td>
<td>5.9 ± 1.01</td>
<td>0.2 (0.1 to 0.3)</td>
<td>0.001</td>
</tr>
<tr>
<td>HDL (mmol/l)</td>
<td>1.4 ± 0.35</td>
<td>1.5 ± 0.37</td>
<td>0.1 (0.0 to 0.3)</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>LDL (mmol/l)</td>
<td>3.6 ± 0.86</td>
<td>3.6 ± 0.87</td>
<td>0.0 (-0.1 to 0.1)</td>
<td>0.971</td>
</tr>
<tr>
<td>Triglycerides (mmol/l)</td>
<td>16 ± 0.98</td>
<td>17 ± 0.95</td>
<td>0.1 (0.1 to 0.2)</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Notes: Values are expressed as mean ± standard deviation or number of participants (%) and absolute change between baseline and follow-up. aAbsolute difference in value between follow-up and baseline (95% confidence interval).
REFERENCES


