Supplementary Materials
Effectiveness and Safety of a Novel Care Model for the Management of Type 2 Diabetes at One Year:
An Open-Label, Non-Randomized, Controlled Study

Supplementary Materials A.
Methods - Full Inclusion and Exclusion Criteria
Participants were 21 to 65 years old and were excluded if they had serious renal, hepatic, or cardiovascular dysfunction, infectious disease, uncontrolled psychiatric disorder, history of ketoacidosis, intolerance to dietary fat, cancer with active treatment in the last five years, pregnancy, or planned pregnancy.

Inclusion Criteria:
- Diabetes: Diagnosis of type-2 diabetes without end-organ failure
- BMI: > 25
- Ethnicity: all ethnic groups
- Age: 21 to 65 years

Exclusion Criteria:
- Type 1 diabetes
- History of keto-acidosis
- History of myocardial infarction, stroke, angina, or coronary insufficiency within the last 6 months
- Diabetic retinopathy requiring treatment
- Creatinine > 2.0 mg·dL⁻¹ or > 152.5 µmol·L⁻¹
- Urinary albumin > 1 g·dL⁻¹ or > 10 g·L⁻¹
- Impaired hepatic function (Bilirubin > 2 mg·dL⁻¹ or > 34.2 µmol·L⁻¹, Albumin < 3.5 g·dL⁻¹ or < 35 g·L⁻¹)
- Cholelithiasis or biliary dysfunction
- Cancer requiring treatment in the past 5 years, with the exception of non-melanoma skin cancer
- Chronic infectious disease requiring ongoing treatment
- Other chronic diseases or condition likely to limit lifespan to <6 years
- Non-English speaking
- Unable or unwilling to participate in group sessions (e.g., plans to relocate within the next year) or conform to a carbohydrate restricted diet lifestyle (e.g., food intolerances, religious or personal restrictions)
- Weight loss of >10% in past 6 months
- Currently pregnant or nursing, or planning to become pregnant during the study
- Major psychiatric disorder (e.g., schizophrenia, bipolar disorder) currently uncontrolled
- Excessive alcohol intake (acute or chronic) defined as average consumption of 3 or more alcohol containing beverages daily or consumption of more than 14 alcoholic beverages per week
Supplementary Materials B.

**Methods - Medication Management**

All medications changes were tracked in a database visible to the medical provider and health coach. Upon commencing dietary changes, insulin and sulfonylurea doses were reduced or eliminated to safely adjust for anticipated decreases in glucose concentrations based on the study physician’s clinical judgment of the participant’s most recent HbA1c, participant-reported last two weeks of blood glucose measurements, and other concurrent anti-diabetic medications. Similarly, prescription of SGLT-2 inhibitors were discontinued at onset of dietary changes.[1] In the following days and weeks, participants reported BHB and gluoses one to three times per day via the app, based on medical provider instructions. Health coaches and medical providers monitored BHB and glucose, and the medical provider prescribed medications changes as necessary based on glucose and BHB trends and concurrent medication use with a goal of maintaining any reported glucose (fasting, pre-meal or post-meal) between 120 and 180 mg·dL⁻¹ (6.66 and 9.99 mmol·L⁻¹) until the medication could be eliminated.

During medication management, the primary focus was on preventing episodes of symptomatic hypoglycemia in patients. Any reported blood glucose <100 mg·dL⁻¹ (<5.55 mmol·L⁻¹) prompted insulin or sulfonylurea reduction of 10-50%. Medication eliminations typically occurred by first discontinuing sulfonylureas, followed by short-acting, and then long-acting insulin. Every patient prescribed short-acting insulin was instructed not to take any insulin if blood glucose was <120 mg·dL⁻¹ (<6.66 mmol·L⁻¹); for blood glucose ≥120 mg·dL⁻¹ (≥6.66 mmol·L⁻¹), the newly prescribed dose was reduced in 20 - 50% increments in anticipation of reduction in dietary carbohydrates until the bolus or sliding scale was no longer needed.

Thiazolidinediones, DPP-4 inhibitors, and GLP-1 were discontinued after elimination of insulin and sulfonylureas and reported blood glucoses were consistently under 100 mg·dL⁻¹ (5.55 mmol·L⁻¹). Metformin, given its effectiveness, low cost, and tolerability[2,3], was generally not eliminated unless the participants reported side effects or requested discontinuation.

At any time during the study, reported blood glucoses consistently above 180 mg·dL⁻¹ (9.99 mmol·L⁻¹), generally, >3 times within a week and sustained for >1 week, prompted a medication increase or addition. If the participant was previously prescribed insulin, long-acting insulin was the first medication re-started. If the participant was previously prescribed a DPP-4 inhibitor, GLP-1, or a thiazolidinedione without insulin or sulfonylurea use, these were re-started. Two participants self-resumed taking their SGLT-2 inhibitors without physician direction. In these participants, BHB was monitored at least once daily, and no values of concern were reported. In all participants, blood glucose levels were monitored for trends up and down, which prompted the appropriate medication adjustments.

Fifty percent of CCI participants entered the trial with statin prescriptions. Among completers, prescriptions were discontinued at patient request (n=18). In some cases, prescriptions were added (n=10) or increased (n=3) when deemed beneficial. Medication adjustments occurred both via remote care and at on-site clinic visits.
Methods - Education

Education provided participants an understanding of the core concepts and implementation instructions to enable initial achievement of nutritional ketosis and behavior change. Content included the pathophysiology of diabetes, practical management of carbohydrate restriction while consuming protein in moderation and increasing fat intake with a goal of achieving nutritional ketosis, how to assess and utilize BHB as a biofeedback mechanism and implementing of behavior change techniques. Additional resources were provided to participants to supplement their education, such as guides, blog posts, and recipes.

Examples of Educational Modules

- Introduction
- Prepare for Adaptation
- Adaptation
- Understanding ketones and self-testing
- Navigating the social scene
- Beverages and sweeteners
- Dietary supplements
- Cholesterol and lipids
- Fiber
- Goal setting
- Body image
- Personalizing physical activity
- Maintenance
- Advanced lipid metabolism

Methods – Laboratory Analysis

Blood analytes determined via standard procedures at a CLIA accredited laboratory at the time of draw included the following tests and panels: HbA1c, complete blood count (CBC), complete metabolic panel (CMP), high-sensitive C-reactive protein (hsCRP), uric acid, thyroid stimulating hormone (TSH), free T4 (FT4), and lipids. HbA1c was determined from EDTA-treated whole blood using high performance liquid chromatography on Bio-Rad Variant II Turbo 2.0. Complete blood count with differential was determined from EDTA-treated whole blood with flow cytometry on a Beckman Coulter DxH80. Lithium-heparin treated plasma was utilized to determine the CMP, hsCRP, and uric acid with a Beckman Coulter AU680 and to determine TSH and FT4 via chemiluminescent detection on the Beckman Coulter DXI600. Estimated glomerular filtration rate (eGFR) was calculated from serum creatinine, gender, race, and age[4]. 5.2% of all participants were African American.

Aliquots of serum were stored at -80°C and thawed once for later analysis of blood lipids, insulin, C-peptide, and BHB by a CLIA accredited laboratory. FDA approved methods were utilized for insulin, C-peptide (cobas e601, Roche Diagnostics; Indianapolis, IN, USA) and ApoB, total cholesterol, triglycerides, direct HDL (cobas c501, Roche Diagnostics; Indianapolis, IN, USA). LDL was calculated using the Friedewald equation. Beta-hydroxybutyrate was performed with research use only assays, using a coupled enzymatic assay (Stanbio Laboratory, Boerne, TX) on an open channel of the cobas c501. HOMA-IR derived from fasting serum insulin.
concentrations was calculated as \((\text{fasting insulin} \times \text{fasting glucose})/22.5\) in participants not using insulin medication.\([5]\) Homeostatic model assessment for insulin resistance (HOMA-IR) derived from C-peptide was calculated on all participants without regard to their insulin use from the updated HOMA2 (computer) model.\([6]\)

**Supplementary Materials References**

1. Handelsman Y, Henry RR, Bloomgarden ZT, Dagogo-Jack S, DeFronzo RA, Einhorn D, et al. American Association of Clinical Endocrinologists and American College of Endocrinology Position Statement on the Association of SGLT-2 Inhibitors and Diabetic Ketoacidosis. Endocrine Practice. 2016 Jun;22(6):753–62.

2. American Diabetes Association. Standards of Medical Care in Diabetes—2018. Diabetes Care. 2018 Jan 1;41(Supplement 1):S1–S172.

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4. Levey AS, Stevens LA, Schmid CH, Zhang YL, Castro AF III, Feldman HI, et al. A New Equation to Estimate Glomerular Filtration Rate. Ann Intern Med. 2009 May 5;150(9):604–16.

5. Matthews DR, Hosker JP, Rudenski AS, Naylor BA, Treacher DF, Turner RC. Homeostasis model assessment: insulin resistance and ?-cell function from fasting plasma glucose and insulin concentrations in man. Diabetologia. 1985 Jul;28(7):412–9.

6. Levy JC, Matthews DR, Hermans MP. Correct homeostasis model assessment (HOMA) evaluation uses the computer program. Diabetes Care. 1998 Dec;21(12):2191–2.
|                          | All N | Mean (SD) or ±SE | Completers with data N | Mean (SD) or ±SE | Dropout or missing data N | Mean (SD) or ±SE | Completers-Dropouts Mean ± SE |
|--------------------------|-------|------------------|-------------------------|------------------|---------------------------|------------------|-------------------------------|
| **Age (years)**          |       |                  |                         |                  |                           |                  |                               |
| All                      | 349   | 53.4 (8.67)      | 296                    | 53.46 (8.75)     | 53                        | 53.06 (8.25)     | 0.4 ± 1.24                   |
| CCI-all education^a      | 262   | 53.75 (8.35)     | 218                    | 54.09 (8.35)     | 44                        | 52.09 (8.25)     | 2.0 ± 1.37                   |
| CCI-web^b                | 126   | 53.39 (8.19)     | 104                    | 53.49 (8.23)     | 22                        | 51.27 (8.44)     | 0.58 ± 1.92                  |
| CCI-onsite^a             | 136   | 54.09 (8.52)     | 114                    | 54.63 (8.47)     | 9                         | 57.78 (6.85)     | 3.36 ± 1.97                  |
| Usual care^a             | 87    | 52.33 (9.52)     | 78                     | 51.71 (9.62)     | 9                         | 57.78 (6.85)     | -6.07 ± 2.53*                |
| CCI-web vs. CCI-onsite^b |       | -0.7 ± 1.03      |                         | -1.14 ± 1.13      |                           | 1.64 ± 2.5       |                               |
| CCI-web vs. usual care^b |       | 1.06 ± 1.25      |                         | 1.79 ± 1.36      |                           | -4.87 ± 2.87     |                               |
| CCI-onsite vs. usual care^b |     | 1.75 ± 1.26      |                         | 2.93 ± 1.35      |                           | -6.51 ± 2.91     |                               |
| CCI-all vs. usual care^b |       | 1.42 ± 1.14      |                         | 2.38 ± 1.23*     |                           | -5.69 ± 2.6*     |                               |
| **Female (%)**           |       |                  |                         |                  |                           |                  |                               |
| All                      | 349   | 64.76 ± 2.55     | 296                    | 63.85 ± 2.79     | 53                        | 69.81 ± 6.31     | -5.96 ± 6.9                  |
| CCI-all education^a      | 262   | 66.79 ± 2.91     | 218                    | 65.14 ± 3.23     | 44                        | 75.0 ± 6.53      | -9.86 ± 7.28                 |
| CCI-web^b                | 126   | 61.9 ± 4.33      | 104                    | 57.69 ± 4.84     | 22                        | 81.82 ± 8.22     | -24.13 ± 9.54*               |
| CCI-onsite^a             | 136   | 71.32 ± 3.88     | 114                    | 71.93 ± 4.21     | 22                        | 68.18 ± 9.93     | 3.75 ± 10.79                 |
| Usual care^a             | 87    | 58.62 ± 5.28     | 78                     | 60.26 ± 5.54     | 9                         | 44.44 ± 16.56    | 15.81 ± 17.47                |
| CCI-web vs. CCI-onsite^b |       | -9.42 ± 5.81     |                         | -14.24 ± 6.42*   |                           | 13.64 ± 12.89    |                               |
| CCI-web vs. usual care^b |       | 3.28 ± 6.83      |                         | -2.56 ± 7.36     |                           | 37.37 ± 18.49*   |                               |
| CCI-onsite vs. usual care^b |     | 12.7 ± 6.55*    |                         | 11.67 ± 6.96     |                           | 23.74 ± 19.31    |                               |
| CCI-all vs. usual care^b |       | 8.17 ± 6.03      |                         | 4.88 ± 6.41      |                           | 30.56 ± 17.8     |                               |
| **African American (%)** |       |                  |                         |                  |                           |                  |                               |
| All                      | 349   | 5.16 ± 1.18      | 296                    | 4.39 ± 1.19      | 53                        | 9.43 ± 4.02      | -5.04 ± 4.19                 |
| CCI-all education^a      | 262   | 6.87 ± 1.56      | 218                    | 5.96 ± 1.6       | 44                        | 11.36 ± 4.78     | -5.4 ± 5.05                  |
| CCI-web^b                | 126   | 5.56 ± 2.04      | 104                    | 5.77 ± 2.29      | 22                        | 4.55 ± 4.44      | 1.22 ± 4.99                  |
| CCI-onsite^a             | 136   | 8.09 ± 2.34      | 114                    | 6.14 ± 2.25      | 22                        | 18.18 ± 8.22     | -12.04 ± 8.52                |
| Usual care^a             | 87    | 0.0 ± 0.0        | 78                     | 0.0 ± 0.0        | 9                         | 0.0 ± 0.0        | 0.0 ± 0.0                    |
| CCI-web vs. CCI-onsite^b |       | -2.53 ± 3.1      |                         | -0.37 ± 3.21     |                           | -13.64 ± 9.35    |                               |
| CCI-web vs. usual care^b |       | 5.56 ± 2.04†     |                         | 5.77 ± 2.29*     |                           | 4.55 ± 4.44      |                               |
| CCI-onsite vs. usual care^b |     | 8.09 ± 2.34‡    |                         | 6.14 ± 2.25‡     |                           | 18.18 ± 8.22*    |                               |
| CCI-all vs. usual care^b |       | 6.87 ± 1.56‡    |                         | 5.96 ± 1.6‡      |                           | 11.36 ± 4.78*    |                               |
### Years with type 2 diabetes

|                  | CCI-all education\(^a\) | CCI-web\(^a\) | CCI-onsite\(^a\) | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^b\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|------------------|--------------------------|---------------|-------------------|------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|
| All              | 332                      | 288           | 44                | 8.61 (6.97)      | -0.35 ± 1.13                |                               |                               |                               |
| CCI-all education\(^a\) | 261                      | 217           | 44                | 8.4 (7.28)       | 8.61 (6.97)                 | -0.21 ± 1.16                  |                               |                               |
| CCI-web\(^a\)    | 126                      | 104           | 22                | 7.95 (7.03)      | 7.55 (5.65)                 | 0.41 ± 1.39                   |                               |                               |
| CCI-onsite\(^a\) | 135                      | 113           | 22                | 8.81 (7.51)      | 9.68 (8.07)                 | -0.87 ± 1.86                  |                               |                               |
| Usual care\(^a\) | 71                       | 71            |                   | 7.85 (7.32)      | Not collected               |                               |                               |                               |
| CCI-web vs. CCI-onsite\(^b\) | -1.07 ± 0.89          | -0.86 ± 0.99  |                  |                  | -2.14 ± 2.1                 |                               |                               |                               |
| CCI-web vs. usual care\(^b\) | 0.04 ± 1.06            | 0.11 ± 1.11   |                  |                  | 0.04 ± 1.06                 |                               |                               |                               |
| CCI-onsite vs. usual care\(^b\) | 1.11 ± 1.09           | 0.97 ± 1.12   |                  |                  | 0.97 ± 1.12                 |                               |                               |                               |
| CCI-all vs. usual care\(^b\) | 0.59 (0.9)             | 0.56 ± 1.0    |                  |                  | 0.56 ± 1.0                  |                               |                               |                               |

### Beta-hydroxybutyrate (mmol·L\(^-1\))

|                  | CCI-all education\(^a\) | CCI-web\(^a\) | CCI-onsite\(^a\) | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^b\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|------------------|--------------------------|---------------|-------------------|------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|
| All              | 327                      | 245           | 82                | 0.19 (0.16)      | -0.02 ± 0.02                |                               |                               |                               |
| CCI-all education\(^a\) | 248                      | 186           | 62                | 0.19 (0.16)      | 0.19 (0.16)                 | -0.02 ± 0.02                  |                               |                               |
| CCI-web\(^a\)    | 120                      | 88            | 32                | 0.18 (0.15)      | 0.21 (0.16)                 | -0.03 ± 0.03                  |                               |                               |
| CCI-onsite\(^a\) | 128                      | 98            | 30                | 0.16 (0.15)      | 0.17 (0.16)                 | -0.01 ± 0.04                  |                               |                               |
| Usual care\(^a\) | 79                       | 59            | 20                | 0.14 (0.12)      | 0.17 (0.15)                 | -0.03 ± 0.03                  |                               |                               |
| CCI-web vs. CCI-onsite\(^b\) | 0.02 ± 0.02            | 0.01 ± 0.03   |                  |                  | 0.03 ± 0.04                  |                               |                               |                               |
| CCI-web vs. usual care\(^b\) | 0.03 ± 0.02            | 0.03 ± 0.03   |                  |                  | 0.03 ± 0.04                  |                               |                               |                               |
| CCI-onsite vs. usual care\(^b\) | 0.01 ± 0.02            | 0.02 ± 0.03   |                  |                  | 0.0 ± 0.04                   |                               |                               |                               |
| CCI-all vs. usual care\(^b\) | 0.02 ± 0.02            | 0.02 ± 0.02   |                  |                  | 0.02 ± 0.04                  |                               |                               |                               |

### Hemoglobin A\(_1c\) (mmol·mol\(^-1\))

|                  | CCI-all education\(^a\) | CCI-web\(^a\) | CCI-onsite\(^a\) | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^b\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|------------------|--------------------------|---------------|-------------------|------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|
| All              | 349                      | 276           | 73                | 61.63 (18.91)    | -26.04 ± 2.4                |                               |                               |                               |
| CCI-all education\(^a\) | 262                      | 204           | 58                | 63.49 (19.57)    | -28.66 ± 2.73               |                               |                               |                               |
| CCI-web\(^a\)    | 126                      | 98            | 30                | 57.69 (13.99)    | 61.85 (19.46)               | -27.57 ± 3.94                 |                               |                               |
| CCI-onsite\(^a\) | 136                      | 106           | 30                | 59.01 (16.51)    | 65.02 (19.89)               | -29.65 ± 3.94                 |                               |                               |
| Usual care\(^a\) | 87                       | 72            | 15                | 61.08 (19.89)    | 54.52 (14.87)               | -16.97 ± 4.48                 |                               |                               |
| CCI-web vs. CCI-onsite\(^b\) | -1.64 ± 2.08            | -1.2 ± 2.19   |                  |                  | -3.28 ± 5.14                |                               |                               |                               |
| CCI-web vs. usual care\(^b\) | -1.31 ± 2.51            | -3.39 ± 2.73  |                  |                  | 7.32 ± 5.25                 |                               |                               |                               |
| CCI-onsite vs. usual care\(^b\) | 0.33 ± 2.51             | -2.19 ± 2.84  |                  |                  | 10.6 ± 5.25*                |                               |                               |                               |
| CCI-all vs. usual care\(^b\) | -0.44 ± 2.3             | -2.73 ± 2.62  |                  |                  | 8.96 ± 4.59*                |                               |                               |                               |

### Hemoglobin A\(_1c\) (%)

|                  | CCI-all education\(^a\) | CCI-web\(^a\) | CCI-onsite\(^a\) | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^b\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|------------------|--------------------------|---------------|-------------------|------------------|-----------------------------|-------------------------------|-------------------------------|-------------------------------|
| All              | 349                      | 276           | 73                | 7.79 (1.73)      | -0.23 ± 0.22                |                               |                               |                               |
| CCI-all education\(^a\) | 262                      | 204           | 58                | 7.96 (1.79)      | -0.47 ± 0.25                |                               |                               |                               |
| CCI-web\(^a\)    | 126                      | 98            | 28                | 7.43 (1.28)      | 7.81 (1.78)                 | -0.37 ± 0.36                  |                               |                               |
| CCI-onsite\(^a\) | 136                      | 106           | 30                | 7.55 (1.51)      | 8.10 (1.82)                 | -0.56 ± 0.36                  |                               |                               |
|                      | n  | Mean (SD) | n  | Mean (SD) | n  | Mean (SD) | n  | Mean (SD) | n  | Mean (SD) |
|----------------------|----|-----------|----|-----------|----|-----------|----|-----------|----|-----------|
| **Usual care**       | 87 | 7.64 (1.76)| 72 | 7.74 (1.82)| 15 | 7.14 (1.36)| 6  | 0.60 ± 0.41|
| CCI-web vs. CCI-onsite | -0.15 ± 0.19 | -0.11 ± 0.2 | -0.3 ± 0.47 |
| CCI-web vs. usual care | -0.12 ± 0.23 | -0.31 ± 0.25 | 0.67 ± 0.48 |
| CCI-onsite vs. usual care | 0.03 ± 0.23 | -0.2 ± 0.26 | 0.97 ± 0.48* |
| CCI-all vs. usual care  | -0.04 ± 0.21 | -0.25 ± 0.24 | 0.82 ± 0.42* |
| **Fasting glucose (mmol·L⁻¹)** |    |           |    |           |    |           |    |           |
| **All**              | 344 | 8.86 (3.57) | 273 | 8.78 (3.46) | 71 | 9.18 (3.96) | 15 | 0.4 ± 0.52 |
| CCI-all education  | 258 | 8.92 (3.41) | 202 | 8.8 (3.28)  | 56 | 9.36 (3.83) | 6  | -0.55 ± 0.56 |
| CCI-web              | 123 | 8.61 (3.12) | 97  | 8.5 (3.05)  | 26 | 9.04 (3.41) | 0  | -0.54 ± 0.74 |
| CCI-onsite          | 135 | 9.2 (3.64)  | 105 | 9.08 (3.47) | 30 | 9.63 (4.21) | 0  | -0.55 ± 0.84 |
| Usual care           | 6  | 8.67 (4.03) | 71  | 8.71 (3.96) | 15 | 8.5 (4.5)   | 0  | 0.21 ± 1.25 |
| CCI-web vs. CCI-onsite | -0.59 ± 0.42 | -0.58 ± 0.46 | -0.59 ± 1.02 |
| CCI-web vs. usual care | -0.05 ± 0.52 | -0.21 ± 0.56 | 0.54 ± 1.34 |
| CCI-onsite vs. usual care | 0.54 ± 0.54 | 0.38 ± 0.58 | 1.13 ± 1.39 |
| CCI-all vs. usual care | 0.25 ± 0.48 | 0.1 ± 0.52 | 0.86 ± 1.27 |
| **Insulin all (pmol·L⁻¹)** |    |           |    |           |    |           |    |           |
| **All**             | 327 | 199.25 (167.24) | 245 | 199.81 (172.03)| 82 | 197.59 (153.0) | 0  | 2.22 ± 20.14 |
| CCI-all education  | 248 | 198.35 (165.85) | 186 | 197.65 (167.17)| 62 | 200.5 (163.21) | 0  | -2.85 ± 24.1 |
| CCI-web             | 120 | 168.07 (110.49) | 88  | 175.99 (121.05) | 32 | 146.26 (71.53) | 30 | 29.72 ± 43.2 |
| CCI-onsite          | 128 | 226.68 (200.92) | 98  | 217.03 (198.35) | 30 | 258.28 (209.46) | 0  | 1.13 ± 1.39 |
| Usual care           | 79  | 202.17 (172.58) | 59  | 206.68 (179.93) | 20 | 188.77 (119.18) | 0  | 17.99 ± 36.18 |
| CCI-web vs. CCI-onsite | -58.62 ± 20.42 | -41.04 ± 23.82 | -112.02 ± 40.28† |
| CCI-web vs. usual care | -34.1 ± 21.88 | -30.7 ± 27.64 | -45.2 ± 29.52 |
| CCI-onsite vs. usual care | 24.59 ± 26.32 | 10.35 ± 31.6 | 69.59 ± 46.6 |
| CCI-all vs. usual care | -3.82 ± 22.09 | -9.1 ± 27.36 | 11.74 ± 33.75 |
| **Insulin, excluding exogenous users (pmol·L⁻¹)** |    |           |    |           |    |           |    |           |
| **All**          | 219 | 202.86 (167.51) | 160 | 202.79 (174.46) | 59 | 203.0 (148.21) | 0  | -0.14 ± 23.75 |
| CCI-all education  | 176 | 204.04 (165.01) | 135 | 203.42 (170.22) | 41 | 205.99 (148.55) | 0  | -2.57 ± 27.43 |
| CCI-web             | 84  | 171.68 (100.98) | 60  | 178.63 (110.36) | 24 | 154.46 (71.53) | 24 | 24.17 ± 20.42 |
| CCI-onsite          | 92  | 233.56 (203.0)  | 75  | 223.28 (204.6)  | 17 | 278.77 (195.43) | 55 | -55.49 ± 52.99 |
| Usual care           | 43  | 198.14 (179.18) | 25  | 199.6 (199.81)  | 18 | 196.13 (151.61) | 30 | 3.47 ± 53.62 |
| CCI-web vs. CCI-onsite | -61.81 ± 23.89 | -44.66 ± 27.57 | -124.25 ± 49.59† |
| CCI-web vs. usual care | -26.39 ± 29.45 | -20.97 ± 42.43 | -41.67 ± 38.61 |
| CCI-onsite vs. usual care | 35.42 ± 34.59 | 23.68 ± 46.39 | 82.65 ± 59.45 |
| CCI-all vs. usual care | 5.9 ± 30.0   | 3.89 ± 42.57  | 9.86 ± 42.57  |
### C-peptide (nmol·L⁻¹)

|                | All          | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-onsite vs. usual care | CCI-all vs. usual care |
|----------------|--------------|-------------------|---------|------------|------------|------------------------|---------------------------|------------------------|
|                | 326          | 324               | 247     | 120        | 127        | 79                     | 0.13 ± 0.1                | 0.07 ± 0.1             |
|                | 1.43 (0.74)  | 1.44 (0.74)       | 1.45 (0.71) | 1.38 (0.68) | 1.52 (0.73) | 1.38 (0.82)            | 0.11 ± 0.1                | -0.13 ± 0.09           |
|                | 244          | 235               | 185     | 88         | 97         | 59                     | 0.12 ± 0.1                | 0.05 ± 0.1             |
|                | 1.44 (0.74)  | 1.47 (0.72)       | 1.47 (0.72) | 1.4 (0.74) | 1.53 (0.69) | 1.35 (0.82)            | 0.10 ± 0.1                | -0.16 ± 0.18           |
|                | 82           | 87                | 62      | 32         | 30         | 20                     | 0.16 ± 0.1                | -0.15 ± 0.18           |
|                | 1.42 (0.72)  | 1.39 (0.69)       | 1.32 (0.46) | 1.47 (0.87) | 1.49 (0.84) | -0.14 ± 0.22           | -0.02 ± 0.24              | -0.09 ± 0.21           |

### HOMA-IR (insulin derived), all

|                | All          | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-onsite vs. usual care | CCI-all vs. usual care |
|----------------|--------------|-------------------|---------|------------|------------|------------------------|---------------------------|------------------------|
|                | 322          | 324               | 244     | 117        | 127        | 78                     | 3.2 ± 1.76                | 1.16 ± 1.33            |
|                | 11.52 (12.28)| 11.62 (12.14)     | 11.19 (12.75) | 9.59 (8.37) | 13.84 (16.11) | 10.64 (9.12)            | -4.25 ± 1.63†             | -2.43 ± 1.85           |
|                | 235          | 235               | 179     | 84         | 95         | 56                     | 3.2 ± 1.76                | 1.16 ± 1.33            |
|                | 11.22 (12.14)| 11.19 (12.75)     | 9.9 (9.26) | 9.9 (9.26) | 12.33 (15.14) | 11.31 (10.05)            | -4.25 ± 1.63†             | -2.43 ± 1.85           |
|                | 87           | 87                | 65      | 33         | 32         | 22                     | 3.2 ± 1.76                | 1.16 ± 1.33            |
|                | 12.34 (12.7) | 13.48 (14.12)     | 8.8 (5.54) | 8.8 (5.54) | 18.32 (18.23) | 8.94 (6.03)             | 9.52 ± 3.36†             | 3.83 ± 1.86            |
|                | -1.12 ± 1.57 | -2.3 ± 1.99       | 1.1 ± 1.4 | -5.99 ± 3.58 | 2.36 ± 1.86 | 2.36 ± 1.86            | 2.36 ± 1.86              | 2.36 ± 1.86            |

### HOMA-IR (insulin derived), excluding exogenous users

|                | All          | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-onsite vs. usual care | CCI-all vs. usual care |
|----------------|--------------|-------------------|---------|------------|------------|------------------------|---------------------------|------------------------|
|                | 215          | 212               | 172     | 81         | 91         | 43                     | 4.76 ± 2.23*              | 2.37 ± 1.64            |
|                | 11.30 (12.96)| 11.77 (13.87)     | 11.77 (13.87) | 9.08 (7.16) | 14.17 (17.54) | 9.40 (8.25)             | -5.08 ± 2.00*             | 1.64 ± 2.22            |
|                | 154          | 154               | 129     | 57         | 72         | 25                     | -3.22 ± 2.22             | 4.76 ± 2.23*            |
|                | 10.74 (12.94)| 11.00 (13.53)     | 9.21 (7.82) | 9.21 (7.82) | 12.42 (16.65) | 9.36 (9.39)             | -11.98 ± 4.64†            | 2.37 ± 1.64            |
|                | 61           | 61                | 43      | 19         | 18         | 18                     | -11.98 ± 4.64†            | 1.64 ± 2.22            |
|                | 12.72 (13.01)| 14.09 (14.76)     | 8.79 (5.39) | 8.79 (5.39) | 20.77 (19.66) | 9.45 (6.61)             | -0.09 ± 2.44             | 2.37 ± 1.64            |
|                | -1.98 ± 1.97 | -3.08 ± 2.55      | 0.41 ± 1.51 | -8.35 ± 4.92 | -0.09 ± 2.44 | 0.41 ± 1.51            | 0.41 ± 1.51              | 0.41 ± 1.51            |

### HOMA-IR (C-peptide derived)

|                | All          | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-onsite vs. usual care | CCI-all vs. usual care |
|----------------|--------------|-------------------|---------|------------|------------|------------------------|---------------------------|------------------------|
|                | 311          | 311               | 239     | 115        | 124        | 115                    | 3.06 ± 2.72               | 2.37 ± 1.64            |
|                | 11.44 (7.17) | 11.52 (7.15)      | 10.52 (5.72) | 10.45 (8.18) | 12.45 (8.18) | 11.44 (8.18)            | 1.42 ± 0.72               | -0.63 ± 0.97           |
|                | 217          | 217               | 170     | 79         | 91         | 91                     | 1.42 ± 0.72               | -0.28 ± 1.19           |
|                | 11.25 (6.59) | 11.44 (6.26)      | 10.75 (6.29) | 12.04 (6.20) | 12.04 (6.20) | 11.44 (8.18)            | 1.42 ± 0.72               | -1.55 ± 2.21           |
|                | 94           | 94                | 69      | 36         | 33         | 33                     | 1.42 ± 0.72               | -1.55 ± 2.21           |
|                | 11.87 (8.38) | 11.72 (9.04)      | 10.01 (4.24) | 13.59 (12.13) | 13.59 (12.13) | 11.44 (8.18)            | 1.42 ± 0.72               | -1.55 ± 2.21           |
|                | -0.63 ± 0.97 | -0.28 ± 1.19      | 0.74 ± 1.00 | -1.55 ± 2.21 | -1.55 ± 2.21 | 0.74 ± 1.00            | 0.74 ± 1.00              | 0.74 ± 1.00            |
|                               | n  | Mean (SD)          | n  | Mean (SD)          | n  | Mean (SD)          | n  | Mean (SD)          |
|-------------------------------|----|-------------------|----|-------------------|----|-------------------|----|-------------------|
| **Usual care**                | 72 | 11.16 (7.26)      | 47 | 10.56 (7.70)      | 25 | 12.29 (6.33)      | 30 | -1.73 ± 1.69      |
| **CCI-web vs. CCI-onsite**    |    | -1.93 ± 0.91*     |    | -1.29 ± 0.96      |    | -3.58 ± 2.23      |
| **CCI-web vs. usual care**    |    | -0.64 ± 1.01      |    | 0.19 ± 1.33       |    | -2.28 ± 1.45      |
| **CCI-onsite vs. usual care** |    | 1.29 ± 1.13       |    | 1.48 ± 1.30       |    | 1.3 ± 2.46        |
| **CCI-all vs. usual care**    |    | 0.36 ± 0.97       |    | 0.88 ± 1.22       |    | -0.56 ± 1.67      |
| **Weight-clinic (kg)**        |    |                   |    |                   |    |                   |    |                   |
| **All**                       | 340| 113.85 (25.47)    | 253| 113.06 (24.24)    | 87 | 116.14 (28.77)    | 30 | -3.08 ± 3.44      |
| **CCI-all education**         | 257| 116.51 (25.94)    | 184| 115.42 (24.62)    | 73 | 119.25 (29.01)    | 30 | -3.83 ± 3.85      |
| **CCI-web**                   | 121| 114.58 (27.08)    | 84 | 114.78 (25.87)    | 37 | 114.14 (30.01)    | 30 | 0.64 ± 5.68       |
| **CCI-onsite**                | 136| 118.22 (24.86)    | 100| 115.96 (23.63)    | 36 | 124.5 (27.36)     | 30 | -8.54 ± 5.14      |
| **Usual care**                |    | 105.63 (22.15)    | 69 | 106.79 (22.18)    | 14 | 99.94 (21.86)     | 30 | 6.84 ± 6.42       |
| **CCI-web vs. CCI-onsite**    |    | -3.64 ± 3.26      |    | -1.18 ± 3.68      |    | -10.36 ± 6.72     |
| **CCI-web vs. usual care**    |    | 8.95 ± 3.46†      |    | 7.99 ± 3.89*      |    | 14.2 ± 7.65       |
| **CCI-onsite vs. usual care** |    | 12.58 ± 3.23§     |    | 9.17 ± 3.57†      |    | 24.55 ± 7.41‡     |
| **CCI-all vs. usual care**    |    | 10.87 ± 2.92§     |    | 8.63 ± 3.23†      |    | 19.3 ± 6.76†      |
| **Weight-home scale (kg)**    |    |                   |    |                   |    |                   |    |                   |
| **CCI-all education**         | 262| 116.4 (26.31)     | 218| 116.29 (25.25)    | 44 | 116.94 (31.37)    | 30 | -0.64 ± 5.03      |
| **CCI-web**                   | 126| 114.52 (27.52)    | 104| 116.05 (27.42)    | 22 | 107.26 (27.42)    | 30 | 8.8 ± 6.44        |
| **CCI-onsite**                | 136| 118.14 (25.12)    | 114| 116.51 (23.21)    | 22 | 126.61 (32.65)    | 30 | -10.11 ± 7.29     |
| **CCI-web vs. CCI-onsite**    |    | -3.62 ± 3.26      |    | -0.45 ± 3.46      |    | -19.36 ± 9.09*    |
| **BMI (kg·m⁻²)**              |    |                   |    |                   |    |                   |    |                   |
| **All**                       | 340| 39.52 (8.6)       | 253| 39.13 (7.89)      | 87 | 40.66 (10.36)     | 30 | -1.54 ± 1.22      |
| **CCI-all education**         | 257| 40.43 (8.81)      | 184| 39.87 (7.88)      | 73 | 41.82 (10.75)     | 30 | -1.94 ± 1.39      |
| **CCI-web**                   | 121| 39.36 (9.12)      | 84 | 38.82 (7.81)      | 37 | 40.6 (11.6)       | 30 | -1.79 ± 2.09      |
| **CCI-onsite**                | 136| 41.37 (8.44)      | 100| 40.76 (7.86)      | 36 | 43.06 (9.82)      | 30 | -2.3 ± 1.82       |
| **Usual care**                |    | 36.72 (7.26)      | 69 | 37.14 (7.62)      | 14 | 34.66 (4.8)       | 30 | 2.48 ± 1.58       |
| **CCI-web vs. CCI-onsite**    |    | -2.01 ± 1.1       |    | -1.95 ± 1.1       |    | -2.46 ± 2.51      |
| **CCI-web vs. usual care**    |    | 2.64 ± 1.15*      |    | 1.68 ± 1.25       |    | 5.94 ± 2.34†      |
| **CCI-onsite vs. usual care** |    | 4.65 ± 1.08§      |    | 3.62 ± 1.21†      |    | 8.4 ± 2.08§       |
| **CCI-all vs. usual care**    |    | 3.7 ± 0.97†       |    | 2.73 ± 1.09†      |    | 7.15 ± 1.8§       |
| **Systolic blood pressure (mmHg)** |    |                   |    |                   |    |                   |    |                   |
| **All**                       | 339| 131.44 (13.99)    | 254| 131.51 (14.14)    | 85 | 131.22 (13.6)     | 30 | 0.29 ± 1.72       |
| **CCI-all education**         | 260| 131.94 (14.09)    | 187| 132.51 (14.54)    | 73 | 130.47 (12.84)    | 30 | 2.05 ± 1.84       |
| **CCI-web**                   | 124| 132.66 (14.15)    | 87 | 133.22 (14.78)    | 37 | 131.35 (12.63)    | 30 | 1.87 ± 2.61       |
| **CCI-onsite**                | 136| 131.28 (14.06)    | 100| 131.9 (14.38)     | 36 | 129.56 (13.16)    | 30 | 2.34 ± 2.62       |
Usual care\(^a\) & 79 & 129.8 (13.61) & 67 & 128.72 (12.65) & 12 & 135.83 (17.49) & -7.12 ± 5.28  
CCI-web vs. CCI-onsite\(^b\) & & 1.38 ± 1.75 & & 1.32 ± 2.14 & & 1.8 ± 3.02  
CCI-web vs. usual care\(^b\) & & 2.86 ± 1.99 & & 4.5 ± 2.21* & & -4.48 ± 5.46  
CCI-onsite vs. usual care\(^b\) & & 1.48 ± 1.95 & & 3.18 ± 2.11 & & -6.28 ± 5.5  
CCI-all vs. usual care\(^b\) & & 2.14 ± 1.76 & & 3.8 ± 1.88* & & -5.37 ± 5.27  

### Diastolic blood pressure (mmHg)

| All | 339 | 82.07 (8.4) | 254 | 81.46 (8.04) | 85 | 83.88 (9.2) | -2.42 ± 1.12*  
| CCI-all education\(^a\) | 260 | 82.09 (8.25) | 187 | 81.59 (8.05) | 73 | 83.37 (8.67) | -1.78 ± 1.17  
| CCI-web\(^a\) | 124 | 82.6 (8.85) | 87 | 81.52 (8.27) | 37 | 85.14 (9.74) | -3.62 ± 1.83*  
| CCI-onsite\(^a\) | 136 | 81.63 (7.67) | 100 | 81.66 (7.9) | 36 | 81.56 (7.09) | 0.1 ± 1.42  
| Usual care\(^a\) | 79 | 82.0 (8.93) | 67 | 81.1 (8.07) | 12 | 87.0 (11.95) | -5.9 ± 3.59  
| CCI-web vs. CCI-onsite\(^b\) | & | 0.96 ± 1.03 & & -0.14 ± 1.19 & & 3.58 ± 1.99  
| CCI-web vs. usual care\(^b\) | & | 0.6 ± 1.28 & & 0.41 ± 1.33 & & -1.86 ± 3.8  
| CCI-onsite vs. usual care\(^b\) | & | -0.37 ± 1.2 & & 0.56 ± 1.26 & & -5.44 ± 3.65  
| CCI-all vs. usual care\(^b\) | & | 0.09 ± 1.13 & & 0.49 ± 1.15 & & -3.63 ± 3.6  

### Total cholesterol (mmol·L\(^{-1}\))

| All | 326 | 4.76 (1.09) | 245 | 4.69 (1.09) | 81 | 4.96 (1.1) | -0.28 ± 0.14*  
| CCI-all education\(^a\) | 247 | 4.76 (1.07) | 186 | 4.68 (1.03) | 61 | 4.99 (1.15) | -0.31 ± 0.17  
| CCI-web\(^a\) | 120 | 4.78 (1.1) | 88 | 4.59 (1.06) | 32 | 5.3 (1.07) | -0.72 ± 0.22‡  
| CCI-onsite\(^a\) | 127 | 4.73 (1.03) | 98 | 4.76 (1.0) | 29 | 4.65 (1.16) | 0.11 ± 0.24  
| Usual care\(^a\) | 79 | 4.76 (1.19) | 59 | 4.72 (1.26) | 20 | 4.88 (0.93) | -0.16 ± 0.27  
| CCI-web vs. CCI-onsite\(^b\) | & | 0.04 ± 0.14 & & -0.17 ± 0.15 & & 0.66 ± 0.29*  
| CCI-web vs. usual care\(^b\) | & | 0.02 ± 0.17 & & -0.13 ± 0.2 & & 0.42 ± 0.28  
| CCI-onsite vs. usual care\(^b\) | & | -0.03 ± 0.16 & & 0.04 ± 0.19 & & -0.24 ± 0.3  
| CCI-all vs. usual care\(^b\) | & | -0.0 ± 0.15 & & -0.04 ± 0.18 & & 0.11 ± 0.26  

### LDL-cholesterol (mmol·L\(^{-1}\))

| All | 302 | 102.27 (33.62) | 220 | 100.15 (33.71) | 82 | 107.99 (32.89) | -7.84 ± 4.28  
| CCI-all education\(^a\) | 232 | 102.51 (32.89) | 172 | 100.08 (32.56) | 60 | 109.47 (33.13) | -9.39 ± 4.94  
| CCI-web\(^a\) | 115 | 103.08 (35.61) | 83 | 97.14 (35.58) | 32 | 118.47 (31.22) | -21.32 ± 6.76†  
| CCI-onsite\(^a\) | 117 | 101.95 (30.13) | 89 | 102.82 (29.4) | 28 | 99.18 (32.75) | 3.64 ± 6.93  
| Usual care\(^a\) | 70 | 101.50 (36.16) | 48 | 100.38 (37.93) | 22 | 103.95 (32.67) | -3.58 ± 8.86  
| CCI-web vs. CCI-onsite\(^b\) | & | 1.13 ± 4.33 & & -5.68 ± 5.00 & & 19.29 ± 8.29*  
| CCI-web vs. usual care\(^b\) | & | 1.58 ± 5.45 & & -3.23 ± 6.72 & & 14.51 ± 8.89  
| CCI-onsite vs. usual care\(^b\) | & | 0.45 ± 5.14 & & 2.45 ± 6.30 & & -4.78 ± 9.32  
| CCI-all vs. usual care\(^b\) | & | 1.01 ± 4.83 & & -0.29 ± 6.01 & & 5.51 ± 8.17
### Apo B (g·L\(^{-1}\))

| Group                  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  |
|------------------------|-----|------------|-----|------------|-----|------------|-----|------------|
| All                    | 327 | 1.06 (0.29) | 245 | 1.04 (0.28) | 82  | 1.1 (0.29) | -0.06 ± 0.04 |
| CCI-all education\(^a\) | 248 | 1.05 (0.29) | 186 | 1.03 (0.28) | 62  | 1.1 (0.31) | -0.06 ± 0.04 |
| CCI-web\(^b\)          | 120 | 1.08 (0.3)  | 88  | 1.03 (0.29) | 32  | 1.21 (0.3) | -0.18 ± 0.06† |
| CCI-onsite\(^a\)       | 128 | 1.02 (0.27) | 98  | 1.04 (0.27) | 30  | 0.97 (0.26) | 0.06 ± 0.06  |
| Usual care\(^a\)       | 79  | 1.07 (0.28) | 59  | 1.06 (0.3)  | 20  | 1.11 (0.24) | -0.05 ± 0.07 |
| CCI-web vs. CCI-onsite\(^b\) | 0.06 ± 0.04 | -0.01 ± 0.04 | 0.24 ± 0.07‡ |
| CCI-web vs. usual care\(^b\) | 0.01 ± 0.04 | -0.03 ± 0.05 | 0.11 ± 0.08  |
| CCI-onsite vs. usual care\(^b\) | -0.05 ± 0.04 | -0.02 ± 0.05 | -0.13 ± 0.07 |
| CCI-all vs. usual care\(^b\) | -0.02 ± 0.04 | -0.02 ± 0.04 | -0.01 ± 0.07 |

### HDL-C (mmol·L\(^{-1}\))

| Group                  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  |
|------------------------|-----|------------|-----|------------|-----|------------|-----|------------|
| All                    | 326 | 1.06 (0.34) | 245 | 1.06 (0.35) | 81  | 1.06 (0.31) | 0.0 ± 0.04   |
| CCI-all education\(^a\) | 247 | 1.09 (0.35) | 186 | 1.1 (0.36)  | 61  | 1.08 (0.32) | 0.02 ± 0.05  |
| CCI-web\(^b\)          | 120 | 1.1 (0.33)  | 88  | 1.1 (0.36)  | 32  | 1.1 (0.24)  | -0.0 ± 0.06  |
| CCI-onsite\(^a\)       | 127 | 1.09 (0.36) | 98  | 1.1 (0.36)  | 29  | 1.05 (0.39) | 0.04 ± 0.08  |
| Usual care\(^a\)       | 79  | 0.97 (0.29) | 59  | 0.96 (0.29) | 20  | 1.02 (0.29) | -0.06 ± 0.08 |
| CCI-web vs. CCI-onsite\(^b\) | 0.01 ± 0.04 | 0.0 ± 0.05  | 0.05 ± 0.08  |
| CCI-web vs. usual care\(^b\) | 0.12 ± 0.04† | 0.14 ± 0.05 | 0.08 ± 0.08  |
| CCI-onsite vs. usual care\(^b\) | 0.11 ± 0.05* | 0.14 ± 0.05† | 0.04 ± 0.1   |
| CCI-all vs. usual care\(^b\) | 0.12 ± 0.04† | 0.14 ± 0.05† | 0.06 ± 0.08  |

### Triglycerides (mmol·L\(^{-1}\))

| Group                  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  |
|------------------------|-----|------------|-----|------------|-----|------------|-----|------------|
| All                    | 326 | 2.46 (2.66) | 245 | 2.53 (2.97) | 81  | 2.26 (1.35) | 0.27 ± 0.24 |
| CCI-all education\(^a\) | 247 | 2.23 (1.62) | 186 | 2.27 (1.73) | 61  | 2.11 (1.25) | 0.15 ± 0.2   |
| CCI-web\(^b\)          | 120 | 2.14 (1.17) | 88  | 2.16 (1.2)  | 32  | 2.1 (1.1)  | 0.06 ± 0.23  |
| CCI-onsite\(^a\)       | 127 | 2.31 (1.95) | 98  | 2.36 (2.09) | 29  | 2.13 (1.41) | 0.23 ± 0.34  |
| Usual care\(^a\)       | 79  | 3.2 (4.53)  | 59  | 3.36 (5.17) | 20  | 2.72 (1.56) | 0.64 ± 0.76  |
| CCI-web vs. CCI-onsite\(^b\) | -0.16 ± 0.2  | -0.2 ± 0.25 | -0.03 ± 0.33 |
| CCI-web vs. usual care\(^b\) | -1.05 ± 0.52* | -1.2 ± 0.69 | -0.62 ± 0.4 |
| CCI-onsite vs. usual care\(^b\) | -0.89 ± 0.54* | -1.0 ± 0.71 | -0.59 ± 0.44 |
| CCI-all vs. usual care\(^b\) | -0.97 ± 0.52* | -1.09 ± 0.68 | -0.61 ± 0.38* |

### Total/HDL-cholesterol

| Group                  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  | N   | Mean (SD)  |
|------------------------|-----|------------|-----|------------|-----|------------|-----|------------|
| All                    | 326 | 4.88 (1.92) | 245 | 4.84 (2.0)  | 81  | 4.99 (1.66) | -0.15 ± 0.22 |
| CCI-all education\(^a\) | 247 | 4.72 (1.7)  | 186 | 4.65 (1.72) | 61  | 4.93 (1.65) | -0.28 ± 0.25 |
| CCI-web\(^b\)          | 120 | 4.68 (1.54) | 88  | 4.55 (1.58) | 32  | 5.02 (1.36) | -0.47 ± 0.29 |
| CCI-onsite\(^a\)       | 127 | 4.76 (1.85) | 98  | 4.74 (1.83) | 29  | 4.84 (1.94) | -0.1 ± 0.41  |
|                              | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|------------------------------|------------|------------------------|-----------------------|--------------------------|-----------------------|
| **Usual care**               | 343        | 0.5 (0.37)             | 272                   | 0.51 (0.39)              | 71                    |
| CCI-all education            | 257        | 0.51 (0.38)            | 201                   | 0.52 (0.41)              | 56                    |
| CCI-web                      | 123        | 0.53 (0.3)             | 97                    | 0.56 (0.31)              | 26                    |
| CCI-onsite                   | 134        | 0.49 (0.44)            | 104                   | 0.49 (0.48)              | 30                    |
| Usual care                   | 86         | 0.46 (0.33)            | 71                    | 0.45 (0.34)              | 15                    |
| CCI-web vs. CCI-onsite       | 0.04 ± 0.05| 0.06 ± 0.06            | -0.04 ± 0.07          |                          |
| CCI-web vs. usual care       | 0.07 ± 0.04| 0.1 ± 0.05*            | -0.06 ± 0.09          |                          |
| CCI-onsite vs. usual care    | 0.03 ± 0.05| 0.04 ± 0.06            | -0.02 ± 0.09          |                          |
| CCI-all vs. usual care       | 0.05 ± 0.04| 0.07 ± 0.05            | -0.04 ± 0.08          |                          |

**hsC-reactive protein (nmol·L⁻¹)**

|                              | All | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|------------------------------|-----|------------------------|-----------------------|--------------------------|-----------------------|
| **hsC-reactive protein**     | 334 | 82.19 (126.1)          | 263                   | 86.0 (138.29)            | 71                    |
| CCI-all education            | 249 | 81.33 (138.0)          | 193                   | 85.62 (153.05)           | 56                    |
| CCI-web                      | 126 | 89.43 (183.72)         | 98                    | 98.38 (98.38)            | 28                    |
| CCI-onsite                   | 123 | 73.14 (63.53)          | 95                    | 72.38 (72.38)            | 28                    |
| Usual care                   | 85  | 84.67 (82.1)           | 70                    | 86.95 (86.95)            | 15                    |
| CCI-web vs. CCI-onsite       | 16.29 ± 17.33| 25.91 ± 21.71         | 17.33 ± 16.57         |                          |
| CCI-web vs. usual care       | 4.76 ± 18.67 | 11.43 ± 23.24         | 15.71 ± 17.71         |                          |
| CCI-onsite vs. usual care    | -11.52 ± 10.57| -14.57 ± 11.9          | 1.62 ± 22.0           |                          |
| CCI-all vs. usual care       | -3.24 ± 12.48| -1.33 ± 15.05         | -7.05 ± 18.19         |                          |

**ALT (µkat·L⁻¹)**

|                              | All | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|------------------------------|-----|------------------------|-----------------------|--------------------------|-----------------------|
| **ALT**                      | 343 | 0.4 (0.27)             | 272                   | 0.4 (0.3)                | 71                    |
| CCI-all education            | 257 | 0.4 (0.25)             | 201                   | 0.41 (0.28)              | 56                    |
| CCI-web                      | 123 | 0.42 (0.27)            | 97                    | 0.44 (0.29)              | 26                    |
| CCI-onsite                   | 134 | 0.37 (0.24)            | 104                   | 0.37 (0.26)              | 30                    |
| Usual care                   | 86  | 0.4 (0.32)             | 71                    | 0.39 (0.35)              | 15                    |
| CCI-web vs. CCI-onsite       | 0.05 ± 0.03| 0.07 ± 0.04            | -0.02 ± 0.04          |                          |
| CCI-web vs. usual care       | 0.02 ± 0.04| 0.05 ± 0.05            | -0.07 ± 0.05          |                          |
| CCI-onsite vs. usual care    | -0.03 ± 0.04| -0.02 ± 0.05           | -0.05 ± 0.05          |                          |
| CCI-all vs. usual care       | -0.0 ± 0.04| 0.01 ± 0.05            | -0.06 ± 0.05          |                          |
|                   |   |          |          |          |          |          |          |
|-------------------|---|----------|----------|----------|----------|----------|----------|
| Alkaline phosphatase (µkat·L⁻¹) |   |          |          |          |          |          |          |
| All               | 342 | 1.25 (0.39) | 271 | 1.26 (0.4) | 71 | 1.23 (0.36) | 0.03 ± 0.05 |
| CCI-all education | 256 | 1.24 (0.37) | 200 | 1.24 (0.37) | 56 | 1.23 (0.36) | 0.01 ± 0.05 |
| CCI-web           | 123 | 1.22 (0.39) | 97 | 1.23 (0.4) | 26 | 1.19 (0.33) | 0.04 ± 0.08 |
| CCI-onsite        | 133 | 1.25 (0.36) | 103 | 1.25 (0.35) | 30 | 1.27 (0.39) | -0.02 ± 0.08 |
| Usual care        | 86 | 1.29 (0.44) | 71 | 1.31 (0.45) | 15 | 1.22 (0.38) | 0.09 ± 0.11 |
| CCI-web vs. CCI-onsite | -0.03 ± 0.05 | -0.02 ± 0.05 | -0.08 ± 0.1 |
| CCI-web vs. usual care | -0.07 ± 0.06 | -0.08 ± 0.07 | -0.03 ± 0.12 |
| CCI-onsite vs. usual care | -0.04 ± 0.06 | -0.06 ± 0.06 | 0.05 ± 0.12 |
| CCI-all vs. usual care | -0.05 ± 0.05 | -0.07 ± 0.06 | 0.01 ± 0.11 |
| Serum creatinine (µmol·L⁻¹) |   |          |          |          |          |          |          |
| All               | 344 | 78.68 (21.22) | 273 | 77.79 (20.33) | 71 | 82.21 (24.75) | -4.42 ± 3.54 |
| CCI-all education | 258 | 77.79 (21.22) | 202 | 77.79 (20.33) | 56 | 81.33 (24.75) | -3.54 ± 3.54 |
| CCI-web           | 123 | 76.91 (17.68) | 97 | 76.91 (18.56) | 26 | 76.02 (15.91) | 0.88 ± 3.54 |
| CCI-onsite        | 135 | 79.56 (23.87) | 105 | 77.79 (21.22) | 30 | 85.75 (29.17) | -7.96 ± 6.19 |
| Usual care        | 86 | 80.44 (22.1) | 71 | 78.68 (20.33) | 15 | 86.63 (25.64) | -7.07 ± 7.07 |
| CCI-web vs. CCI-onsite | -2.65 ± 2.65 | -0.88 ± 2.65 | -10.61 ± 6.19 |
| CCI-web vs. usual care | -3.54 ± 2.65 | -1.77 ± 2.65 | -10.61 ± 7.07 |
| CCI-onsite vs. usual care | -0.88 ± 3.54 | -0.88 ± 3.54 | 0.0 ± 8.84 |
| CCI-all vs. usual care | -1.77 ± 2.65 | -1.77 ± 2.65 | -5.3 ± 7.07 |
| BUN (mmol·L⁻¹)    |   |          |          |          |          |          |          |
| All               | 344 | 5.95 (2.31) | 273 | 5.94 (2.08) | 71 | 6.0 (3.06) | -0.06 ± 0.39 |
| CCI-all education | 258 | 6.03 (2.34) | 202 | 6.06 (2.15) | 56 | 5.9 (2.96) | 0.16 ± 0.42 |
| CCI-web           | 123 | 6.02 (1.71) | 97 | 6.17 (1.81) | 26 | 5.42 (1.14) | 0.75 ± 0.29† |
| CCI-onsite        | 135 | 6.04 (2.8) | 105 | 5.96 (2.42) | 30 | 6.32 (3.88) | -0.36 ± 0.75 |
| Usual care        | 86 | 5.73 (2.23) | 71 | 5.59 (1.86) | 15 | 6.38 (3.52) | -0.79 ± 0.94 |
| CCI-web vs. CCI-onsite | -0.02 ± 0.29 | 0.21 ± 0.3 | -0.9 ± 0.74 |
| CCI-web vs. usual care | 0.29 ± 0.29 | 0.58 ± 0.29* | -0.95 ± 0.94 |
| CCI-onsite vs. usual care | 0.31 ± 0.34 | 0.37 ± 0.32 | -0.06 ± 1.15 |
| CCI-all vs. usual care | 0.3 ± 0.28 | 0.47 ± 0.27 | -0.47 ± 0.99 |
| eGFR (mL·s⁻¹·m⁻²) |   |          |          |          |          |          |          |
| All               | 344 | 1.34 (0.23) | 273 | 1.34 (0.22) | 71 | 1.31 (0.26) | 0.03 ± 0.03 |
| CCI-all education | 258 | 1.34 (0.23) | 202 | 1.35 (0.22) | 56 | 1.33 (0.25) | 0.02 ± 0.04 |
| CCI-web           | 123 | 1.36 (0.21) | 97 | 1.37 (0.2) | 26 | 1.35 (0.23) | 0.02 ± 0.05 |
| CCI-onsite        | 135 | 1.33 (0.24) | 105 | 1.33 (0.24) | 30 | 1.32 (0.26) | 0.01 ± 0.05 |
|                          |     |     |     |     |     |
|--------------------------|-----|-----|-----|-----|-----|
| **Usual care**           | 86  | 1.32 (0.23) | 71  | 1.34 (0.22) | 15  | 1.26 (0.28) | 0.08 ± 0.08 |
| CCI-web vs. CCI-onsite   | 0.04 ± 0.05 | 0.04 ± 0.03 | 0.03 ± 0.07 |
| CCI-web vs. usual care   | 0.04 ± 0.03 | 0.03 ± 0.03 | 0.09 ± 0.09 |
| CCI-onsite vs. usual care| 0.0 ± 0.03 | -0.01 (0.01) | 0.06 ± 0.09 |
| CCI-all vs. usual care   | 0.02 ± 0.03 | 0.02 ± 0.03 | 0.03 ± 0.08 |
| **Anion gap (mmol·L⁻¹)** |     |     |     |     |     |
| All                      | 343 | 6.86 (1.7) | 272 | 6.82 (1.73) | 71  | 6.99 (1.6) | -0.16 ± 0.22 |
| CCI-all education       | 257 | 6.83 (1.67) | 201 | 6.79 (1.7) | 56  | 6.98 (1.53) | -0.19 ± 0.24 |
| CCI-web                | 123 | 6.93 (1.71) | 97  | 6.97 (1.66) | 26  | 6.77 (1.92) | 0.2 ± 0.41    |
| CCI-onsite             | 134 | 6.75 (1.63) | 104 | 6.63 (1.74) | 30  | 7.17 (1.09) | -0.54 ± 0.26* |
| Usual care             | 86  | 6.93 (1.82) | 71  | 6.92 (1.82) | 15  | 7.0 (1.89)  | -0.08 ± 0.53  |
| CCI-web vs. CCI-onsite | 0.18 ± 0.21 | 0.34 ± 0.24 | -0.4 ± 0.43 |
| CCI-web vs. usual care  | 0.0 ± 0.25 | 0.05 ± 0.27 | -0.23 ± 0.62 |
| CCI-onsite vs. usual care| -0.18 ± 0.24 | -0.29 ± 0.27 | 0.17 ± 0.53 |
| CCI-all vs. usual care  | -0.1 ± 0.22 | -0.12 ± 0.25 | -0.02 ± 0.53 |
| **CO₂ (mmol·L⁻¹)**      |     |     |     |     |     |
| All                     | 344 | 27.86 (2.65) | 273 | 27.97 (2.58) | 71  | 27.42 (2.91) | 0.55 ± 0.38    |
| CCI-all education       | 258 | 27.78 (2.55) | 202 | 27.95 (2.37) | 56  | 27.18 (3.06) | 0.77 ± 0.44    |
| CCI-web                | 123 | 27.9 (2.37)  | 97  | 27.97 (2.15) | 26  | 27.65 (3.1)  | 0.32 ± 0.65    |
| CCI-onsite             | 135 | 27.67 (2.7)  | 105 | 27.92 (2.56) | 30  | 26.77 (3.01) | 1.16 ± 0.6    |
| Usual care             | 86  | 28.1 (2.95)  | 71  | 28.06 (3.11) | 15  | 28.33 (2.09) | -0.28 ± 0.65   |
| CCI-web vs. CCI-onsite | 0.24 ± 0.32 | 0.05 ± 0.33 | 0.89 ± 0.82 |
| CCI-web vs. usual care  | -0.2 ± 0.38 | -0.09 ± 0.43 | -0.68 ± 0.81 |
| CCI-onsite vs. usual care| -0.44 ± 0.39 | -0.13 ± 0.45 | -1.57 ± 0.77* |
| CCI-all vs. usual care  | -0.33 ± 0.36 | -0.11 ± 0.4  | -1.15 ± 0.68 |
| **Uric acid (µmol·L⁻¹)** |     |     |     |     |     |
| All                     | 346 | 344.42 (86.85) | 273 | 343.82 (86.25) | 73  | 346.2 (91.01) | -2.38 ± 11.9 |
| CCI-all education       | 261 | 347.99 (86.85) | 202 | 348.58 (86.25) | 59  | 346.2 (89.82) | 2.38 ± 13.09 |
| CCI-web                | 126 | 355.13 (87.44) | 98  | 361.07 (89.82) | 28  | 333.71 (77.93) | 27.36 ± 17.25 |
| CCI-onsite             | 135 | 341.44 (85.66) | 104 | 336.69 (80.9)  | 31  | 357.5 (99.34) | -20.82 ± 19.63 |
| Usual care             | 85  | 333.12 (87.44) | 71  | 330.74 (85.66) | 14  | 345.01 (98.75) | -14.28 ± 28.55 |
| CCI-web vs. CCI-onsite | 13.68 ± 10.71 | 24.98 ± 11.9 | -23.79 ± 23.2 |
| CCI-web vs. usual care  | 22.01 ± 12.49 | 30.34 ± 13.68* | -11.3 ± 30.34 |
| CCI-onsite vs. usual care| 7.73 ± 11.9 | 5.35 ± 13.09* | 12.49 ± 32.12 |
| CCI-all vs. usual care  | 14.87 ± 10.71 | 17.25 ± 11.9 | 1.19 ± 29.15 |
### TSH (mIU·L⁻¹)

| Group                          | Mean (SD)         |
|-------------------------------|-------------------|
| All                           | 2.23 (1.62)       |
| CCI-all education             | 2.32 (1.74)       |
| CCI-web                       | 2.37 (1.91)       |
| CCI-onsite                    | 2.28 (1.56)       |
| Usual care                    | 1.97 (1.16)       |
| CCI-web vs. CCI-onsite        | 0.09 ± 0.22       |
| CCI-web vs. usual care        | 0.4 ± 0.21        |
| CCI-onsite vs. usual care     | 0.31 ± 0.19       |
| CCI-all vs. usual care        | 0.36 ± 0.17*      |
| All vs. onsite vs. usual care | 0.71 ± 0.3*       |
| Free T4 (pmol·L⁻¹)            | 11.71 (2.7)       |
| All                           | 11.84 (2.06)      |
| CCI-all education             | 11.84 (2.45)      |
| CCI-web                       | 11.33 (3.73)      |
| CCI-web vs. CCI-onsite        | 0.0 ± 0.26        |
| CCI-web vs. usual care        | 0.51 ± 0.39       |
| CCI-onsite vs. usual care     | 0.51 ± 0.39       |
| CCI-all vs. usual care        | 0.51 ± 0.39       |
| Free T4 vs. usual care        | 0.26 ± 0.26       |

### Any diabetes medication, excluding metformin (%)

| Group                          | Mean (SD)         |
|-------------------------------|-------------------|
| All                           | 59.31 ± 2.63      |
| CCI-all education             | 56.87 ± 3.06      |
| CCI-web                       | 57.14 ± 4.41      |
| CCI-onsite                    | 56.62 ± 4.25      |
| Usual care                    | 66.67 ± 5.05      |
| CCI-web vs. CCI-onsite        | 0.53 ± 6.12       |
| CCI-web vs. usual care        | -9.52 ± 6.71      |
| CCI-onsite vs. usual care     | -10.05 ± 6.60     |
| CCI-all vs. usual care        | -9.80 ± 5.91      |
| All vs. usual care            | -3.31 ± 6.99      |

### Sulfonylurea (%)

| Group                          | Mean (SD)         |
|-------------------------------|-------------------|
| All                           | 23.78 ± 2.28      |
| CCI-all education             | 23.66 ± 2.63      |
| CCI-web                       | 23.81 ± 3.79      |
| CCI-onsite                    | 23.53 ± 3.64      |
Usual care<sup>a</sup> & 87 & 24.14 ± 4.59 & 73 & 23.29 ± 4.95 & 14 & 28.57 ± 12.07 & -5.28 ± 13.05  
CCI-web vs. CCI-onsite<sup>b</sup> & 0.28 ± 5.26 & 3.15 ± 5.82 & -13.64 ± 11.99  
CCI-web vs. usual care<sup>b</sup> & -0.33 ± 5.95 & 2.67 ± 6.55 & -14.94 ± 14.12  
CCI-onsite vs. usual care<sup>b</sup> & -0.61 ± 5.85 & -0.48 ± 6.32 & -1.30 ± 15.36  
CCI-all vs. usual care<sup>b</sup> & -0.48 ± 5.29 & 1.02 ± 5.74 & -8.12 ± 13.52  

**Insulin (%)**  
**All** & 349 & 33.81 ± 2.53 & 296 & 34.12 ± 2.76 & 53 & 32.08 ± 6.41 & 2.04 ± 6.98  
CCI-all education<sup>a</sup> & 262 & 29.77 ± 2.82 & 218 & 28.44 ± 3.06 & 44 & 36.36 ± 7.25 & -7.92 ± 7.87  
CCI-web<sup>a</sup> & 126 & 28.57 ± 4.02 & 104 & 27.88 ± 4.4 & 22 & 31.82 ± 9.93 & -3.93 ± 10.86  
CCI-onsite<sup>a</sup> & 136 & 30.88 ± 3.96 & 114 & 28.95 ± 4.25 & 22 & 40.91 ± 10.48 & -11.96 ± 11.31  
Usual care<sup>a</sup> & 87 & 45.98 ± 5.34 & 78 & 50.0 ± 5.66 & 9 & 11.11 ± 10.48 & 38.89 (1.91)<sup>‡</sup>  
CCI-web vs. CCI-onsite<sup>b</sup> & 2.31 ± 5.65 & -1.06 ± 6.11 & -9.09 ± 14.44  
CCI-web vs. usual care<sup>b</sup> & 17.41 ± 6.69† & -22.12 ± 7.17† & 20.71 ± 14.43  
CCI-onsite vs. usual care<sup>b</sup> & 15.09 ± 6.65<sup>*</sup> & -21.05 ± 7.08† & 29.8 ± 14.82<sup>*</sup>  
CCI-all vs. usual care<sup>b</sup> & 16.21 ± 6.04† & -21.56 ± 6.43‡ & 25.25 ± 12.74<sup>*</sup>  

**Thiazolidinedione (%)**  
**All** & 349 & 1.43 ± 0.64 & 291 & 1.72 ± 0.76 & 58 & 0.0 ± 0.0 & 1.72 ± 0.76<sup>‡</sup>  
CCI-all education<sup>a</sup> & 262 & 1.53 ± 0.76 & 218 & 1.83 ± 0.91 & 44 & 0.0 ± 0.0 & 1.83 ± 0.91<sup>‡</sup>  
CCI-web<sup>a</sup> & 126 & 2.38 ± 1.36 & 104 & 2.88 ± 1.64 & 22 & 0.0 ± 0.0 & 2.88 ± 1.64  
CCI-onsite<sup>a</sup> & 136 & 0.74 ± 0.73 & 114 & 0.88 ± 0.87 & 22 & 0.0 ± 0.0 & 0.88 ± 0.87  
Usual care<sup>a</sup> & 87 & 1.15 ± 1.14 & 73 & 1.37 ± 1.36 & 14 & 0.0 ± 0.0 & 1.37 ± 1.36  
CCI-web vs. CCI-onsite<sup>b</sup> & 1.65 ± 1.54 & 2.01 ± 1.86 & 0.0 ± 0.0  
CCI-web vs. usual care<sup>b</sup> & 1.23 ± 1.78 & 1.51 ± 2.13 & 0.0 ± 0.0  
CCI-onsite vs. usual care<sup>b</sup> & -0.41 ± 1.36 & -0.49 ± 1.62 & 0.0 ± 0.0  
CCI-all vs. usual care<sup>b</sup> & 0.38 ± 1.37 & 0.46 ± 1.64 & 0.0 ± 0.0  

**SGLT-2 (%)**  
**All** & 349 & 11.17 ± 1.69 & 291 & 11.68 ± 1.88 & 58 & 8.62 ± 3.69 & 3.06 ± 4.14  
CCI-all education<sup>a</sup> & 262 & 10.31 ± 1.88 & 218 & 10.55 ± 2.08 & 44 & 9.09 ± 4.33 & 1.46 ± 4.81  
CCI-web<sup>a</sup> & 126 & 7.14 ± 2.29 & 104 & 7.69 ± 2.61 & 22 & 4.55 ± 4.44 & 3.15 ± 5.15  
CCI-onsite<sup>a</sup> & 136 & 13.24 ± 2.91 & 114 & 13.16 ± 3.17 & 22 & 13.64 ± 7.32 & -0.48 ± 7.97  
Usual care<sup>a</sup> & 87 & 13.79 ± 3.7 & 73 & 15.07 ± 4.19 & 14 & 7.14 ± 6.88 & 7.93 ± 8.06  
CCI-web vs. CCI-onsite<sup>b</sup> & -6.09 ± 3.7 & -5.47 ± 4.1 & -9.09 ± 8.56  
CCI-web vs. usual care<sup>b</sup> & -6.65 ± 4.35 & -7.38 ± 4.94 & -2.60 ± 8.19  
CCI-onsite vs. usual care<sup>b</sup> & -0.56 ± 4.7 & -1.91 ± 5.25 & 6.49 ± 10.05  
CCI-all vs. usual care<sup>b</sup> & -3.48 ± 4.15 & -4.52 ± 4.68 & 1.95 ± 8.13<sup>*</sup>
|                     | All          | CCI-all education\(^a\) | CCI-web\(^a\) | CCI-onsite\(^a\) | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^b\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|---------------------|--------------|--------------------------|---------------|-----------------|-----------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| **DPP-4 (%)**       | 349          | 262                      | 126           | 136             | 87              | 0.76 ± 3.7                    | 2.27 ± 3.98                   | 1.51 ± 3.85                   | 1.87 ± 3.45                   |
|                     | 9.46 ± 1.57  | 9.92 ± 1.85              | 10.32 ± 2.71  | 9.56 ± 2.52     | 8.05 ± 2.92     | -0.91 ± 4.08                  | 1.40 ± 4.32                   | 2.31 ± 4.31                   | 1.87 ± 3.81                   |
|                     | 9.62 ± 1.73  | 10.09 ± 2.04             | 9.62 ± 2.89   | 10.53 ± 2.87    | 8.22 ± 3.21     | 4.55 ± 4.44                   | 6.49 ± 10.05                  | -2.60 ± 8.19                  | 1.95 ± 8.13                   |
|                     | 58           | 44                       | 22            | 22              | 14              | 13.64 ± 7.32                  | 71.84 ± 9.68                  | 13.64 ± 7.32                  | 71.84 ± 9.68                  |
|                     | 8.62 ± 3.69  | 9.09 ± 4.33              | 13.64 ± 7.32  | 4.55 ± 4.44     | 7.14 ± 6.88     | 1.08 ± 7.60                   | 4.55 ± 11.01                  | 9.09 ± 8.56                   | 1.08 ± 7.60                   |
| **GLP-1 (%)**       | 349          | 262                      | 126           | 136             | 87              | -1.27 ± 4.2                   | -2.24 ± 4.84                  | -0.97 ± 4.84                  | -1.58 ± 4.36                  |
|                     | 13.75 ± 1.84 | 13.36 ± 2.1              | 12.7 ± 2.97   | 13.97 ± 2.97    | 14.94 ± 3.82    | 4.55 ± 11.01                  | 11.04 ± 10.72                 | 6.49 ± 10.05                  | 8.77 ± 8.82                   |
|                     | 291          | 218                      | 104           | 114             | 73              | 58                            | 13.79 ± 4.53                  | 9.51 ± 11.01                  | 9.30 ± 8.14                   |
|                     | 13.75 ± 2.02 | 12.84 ± 2.27             | 11.54 ± 3.13  | 14.04 ± 3.25    | 16.44 ± 4.34    | -0.5 ± 4.52                   | 11.04 ± 10.72                 | 4.55 ± 11.01                  | 9.51 ± 11.01                  |
|                     | 58           | 44                       | 22            | 22              | 14              | -3.59 ± 4.89                  | 71.56 ± 3.06                  | 4.55 ± 11.01                  | 9.51 ± 11.01                  |
|                     | 13.79 ± 4.53 | 15.91 ± 5.51             | 18.18 ± 8.22  | 13.64 ± 7.32    | 7.14 ± 6.88     | 9.30 ± 8.14                   | -6.64 ± 8.8                   | 0.4 ± 8.01                    | 9.30 ± 8.14                   |
| **Metformin (%)**   | 349          | 262                      | 126           | 136             | 87              | -2.95 ± 5.59                  | 8.92 ± 6.64                   | 11.87 ± 6.48                  | 10.45 ± 5.93                  |
|                     | 68.77 ± 2.48 | 71.37 ± 2.79             | 69.84 ± 4.09  | 72.79 ± 3.82    | 60.92 ± 5.23    | -0.78 ± 6.12                  | 9.51 ± 7.22                   | 10.29 ± 7.08                  | 9.92 ± 6.46                   |
|                     | 291          | 218                      | 104           | 114             | 73              | -13.64 ± 13.6                 | 6.49 ± 16.74                  | 20.13 ± 15.96                 | 13.31 ± 14.91                 |
|                     | 69.07 ± 2.71 | 71.56 ± 3.06             | 71.15 ± 4.44  | 71.93 ± 4.21    | 61.64 ± 5.69    | 57.14 ± 13.23                 | 6.49 ± 16.74                  | 20.13 ± 15.96                 | 13.31 ± 14.91                 |
|                     | 58           | 44                       | 22            | 22              | 14              | 1.83 ± 6.73                   | 70.45 ± 6.88                  | 57.14 ± 13.23                 | 1.83 ± 6.73                   |
|                     | 67.24 ± 6.16 | 70.45 ± 6.88             | 63.64 ± 10.26 | 77.27 ± 8.93    | 57.14 ± 13.23   | 4.50 ± 14.40                  | 7.52 ± 11.18                  | 57.14 ± 13.23                 | 4.50 ± 14.40                  |
| **Statin (%)**      | 349          | 262                      | 126           | 136             | 87              | 8.62 ± 3.7                    | 2.95 ± 5.59                   | 11.87 ± 6.48                  | 10.45 ± 5.93                  |
|                     | 52.15 ± 2.67 | 50.0 ± 3.09              | 47.62 ± 4.45  | 52.21 ± 4.28    | 52.58 ± 2.93    | -0.78 ± 6.12                  | 9.51 ± 7.22                   | 10.29 ± 7.08                  | 9.92 ± 6.46                   |
|                     | 291          | 218                      | 104           | 114             | 73              | -13.64 ± 13.6                 | 6.49 ± 16.74                  | 20.13 ± 15.96                 | 13.31 ± 14.91                 |
|                     | 52.58 ± 2.93 | 51.83 ± 3.38             | 50.96 ± 4.9   | 52.63 ± 4.68    | 50.0 ± 6.57     | 2.58 ± 7.19                   | 40.91 ± 7.41                  | 50.0 ± 10.66                  | 2.58 ± 7.19                   |
|                     | 58           | 44                       | 22            | 22              | 14              | 2.58 ± 7.19                   | 10.93 ± 8.15                  | 31.82 ± 9.93                  | 2.58 ± 7.19                   |
|                     | 50.0 ± 6.57  | 40.91 ± 7.41             | 31.82 ± 9.93  | 50.0 ± 10.66    | 2.58 ± 7.19     | 10.93 ± 8.15                  | 19.14 ± 11.07                 | 31.82 ± 9.93                  | 10.93 ± 8.15                  |
|                     | 2.58 ± 7.19  | 10.93 ± 8.15             | 19.14 ± 11.07 | 2.58 ± 7.19     | 10.93 ± 8.15    | 19.14 ± 11.07                 | 19.14 ± 11.07                 | 19.14 ± 11.07                 | 19.14 ± 11.07                 |
### Blood pressure medication (%)

|               | All         | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|---------------|-------------|------------|------------------------|------------------------|--------------------------|------------------------|
| **Usual care** | 87          | 58.62 ± 5.28 | 54.79 ± 5.83           | 78.57 ± 10.97          | -23.78 ± 12.42           |
| **CCI**       | 262         | 67.18 ± 2.90 | 68.35 ± 3.15           | 61.36 ± 7.34           | 6.98 ± 7.99              |
| **CCI-onsite**| 126         | 65.08 ± 4.25 | 65.38 ± 4.67           | 63.64 ± 10.26          | 1.75 ± 11.27             |
| **CCI-all**   | 136         | 69.12 ± 3.96 | 71.05 ± 4.25           | 59.09 ± 10.48          | 11.96 ± 11.31            |
| **CCI-web**   | 87          | 52.87 ± 5.35 | 50.68 ± 5.85           | 64.29 ± 12.81          | -13.60 ± 14.08           |
| **CCI-onsite**|             | -4.04 ± 5.81 | -5.67 ± 6.31           | 4.55 ± 14.67           |                         |
| **CCI-web**   |             | 12.21 ± 6.83 | 14.70 ± 7.48           | -0.65 ± 16.41          |                         |
| **CCI-onsite**|             | 16.24 ± 6.66 | 20.37 ± 7.23           | -5.19 ± 16.55          |                         |
| **CCI-all**   |             | 14.30 ± 6.09 | 17.66 ± 6.65           | -2.92 ± 14.76          |                         |

### ACE or ARB (%)

|               | All         | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|---------------|-------------|------------|------------------------|------------------------|--------------------------|------------------------|
| **Usual care**| 87          | 26.65 ± 2.37 | 25.09 ± 2.54           | 34.48 ± 6.24           | -9.4 ± 6.74              |
| **CCI**       | 262         | 29.39 ± 2.81 | 27.98 ± 3.04           | 36.36 ± 7.25           | -8.38 ± 7.86             |
| **CCI-onsite**| 126         | 32.54 ± 4.17 | 30.77 ± 4.53           | 40.91 ± 10.48          | -10.14 ± 11.42           |
| **CCI-all**   | 136         | 26.47 ± 3.78 | 25.44 ± 4.08           | 31.82 ± 9.93           | -6.38 ± 10.74            |
| **CCI-web**   | 87          | 18.39 ± 4.15 | 16.44 ± 4.34           | 28.57 ± 12.07          | -12.13 ± 12.83           |
| **CCI-onsite**|             | 6.07 ± 5.63  | 5.33 ± 6.09            | 9.09 ± 14.44           |                         |
| **CCI-web**   |             | 14.15 ± 5.89 | 14.33 ± 6.27           | 12.34 ± 15.99          |                         |
| **CCI-onsite**|             | 8.08 ± 5.62  | 9.0 ± 5.95             | 3.25 ± 15.63           |                         |
| **CCI-all**   |             | 11.0 ± 5.02  | 11.54 ± 5.3            | 7.79 ± 14.08           |                         |

### Diuretics (%)

|               | All         | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|---------------|-------------|------------|------------------------|------------------------|--------------------------|------------------------|
| **Usual care**| 87          | 38.11 ± 2.6 | 37.11 ± 2.83           | 43.1 ± 6.5             | -5.99 ± 7.09             |
| **CCI**       | 262         | 40.84 ± 3.04 | 41.28 ± 3.33           | 38.64 ± 7.34           | 2.65 ± 8.06              |
| **CCI-onsite**| 126         | 40.48 ± 4.37 | 41.35 ± 4.83           | 36.36 ± 10.26          | 4.98 ± 11.34             |
| **CCI-all**   | 136         | 41.18 ± 4.22 | 41.23 ± 4.61           | 40.91 ± 10.48          | 0.32 ± 11.45             |
| **CCI-web**   | 87          | 29.89 ± 4.91 | 24.66 ± 5.04           | 57.14 ± 13.23          | -32.49 ± 14.16*          |
| **CCI-onsite**|             | -0.7 ± 6.08  | 0.12 ± 6.68            | -4.55 ± 14.67          |                         |
| **CCI-web**   |             | 10.59 ± 6.57 | 16.69 ± 6.98           | -20.78 ± 16.74         |                         |
| **CCI-onsite**|             | 11.29 ± 6.47 | 16.57 ± 6.83           | -16.23 ± 16.88         |                         |
| **CCI-all**   |             | 10.95 ± 5.77 | 16.63 ± 6.05†          | -18.51 ± 15.13         |                         |
Mean and standard deviations for continuous variables, percents and standard errors for categorical variables
Difference between means or percentages ± 1 standard error of the difference. Significant baseline difference between means or percentages at 0.05>P≥0.01 (*); 0.01>P≥0.001 (†); 0.001>P≥0.0001 (‡); and P<0.0001 (§).
Table S2. Mean changes in biomarkers between baseline and one-year for participants receiving the CCI and UC.

|                      | N    | Difference (SD) or ±SE | Unadjusted | One Year | Completers | All starters (Dropouts imputed) |
|----------------------|------|------------------------|------------|----------|------------|----------------------------------|
|                      |      |                        |            |          | Adjusted for baseline  |                                |
|                      |      |                        |            |          |              | Difference ±SE | Significance* | Difference ±SE | Significance* | Difference ±SE | Significance* |
| Beta-hydroxybutyrate (mmol·L⁻¹) |      |                        |            |          |              |                      |              |              |              |              |              |
| CCI-all education    | 186  | 0.14 (0.36)            | 0.31 (0.35)| 2.2x10⁻⁵| 0.13 ± 0.02 | 2.8x10⁻⁷          | 0.12 ± 0.02 | 0.3 ± 0.02  | 5.8x10⁻⁷  |
| CCI-web              | 88   | 0.14 (0.37)            | 0.32 (0.36)| 0.0003 | 0.14 ± 0.04 | 0.0001          | 0.13 ± 0.04 | 0.31 ± 0.04 | 0.0004    |
| CCI-onsite           | 98   | 0.13 (0.36)            | 0.29 (0.34)| 0.0002 | 0.12 ± 0.04 | 0.0007          | 0.12 ± 0.03 | 0.28 ± 0.03 | 0.0004    |
| Usual care           | 59   | 0.04 (0.23)            | 0.18 (0.21)| 0.24   | 0.06 ± 0.05 | 0.18             | 0.03 ± 0.04 | 0.18 ± 0.03 | 0.38       |
| CCI-web vs. CCI-onsite | 0.01 ± 0.05 | 0.87     | 0.02 ± 0.05 | 0.73   | 0.01 ± 0.05 | 0.86             |
| CCI-web vs. usual care | 0.11 ± 0.05 | 0.03     | 0.07 ± 0.06 | 0.22   | 0.1 ± 0.05  | 0.06             |
| CCI-onsite vs. usual care | 0.1 ± 0.05 | 0.04     | 0.06 ± 0.06 | 0.37   | 0.09 ± 0.05 | 0.08             |
| CCI-all vs. usual care | 0.1 (0.0) | 0.01     | 0.06 ± 0.05 | 0.24   | 0.09 ± 0.04 | 0.04             |
| Hemoglobin A₁c (mmol·mol⁻¹) |      |                        |            |          |              |                      |              |              |              |              |              |
| CCI-all education    | 204  | -14.1 (14.43)          | 44.25 (10.28)| <10⁻¹⁶| -14.43 ± 0.98 | <10⁻¹⁶          | -14.21 ± 0.98 | 45.23 ± 0.77 | <10⁻¹⁶    |
| CCI-web              | 98   | -12.9 (12.24)          | 44.79 (9.29)| <10⁻¹⁶| -13.12 ± 1.42 | <10⁻¹⁶          | -13.23 ± 1.2  | 45.45 ± 1.09 | <10⁻¹⁶    |
| CCI-onsite           | 106  | -15.3 (16.07)          | 43.7 (11.15)| <10⁻¹⁶| -15.63 ± 1.42 | <10⁻¹⁶          | -15.19 ± 1.42 | 45.12 ± 1.09 | <10⁻¹⁶    |
| Usual care           | 72   | 2.19 (14.76)           | 63.27 (19.89)| 0.21   | 2.4 ± 1.75   | 0.17             | 2.19 ± 1.64  | 62.18 ± 2.08 | 0.18      |
| CCI-web vs. CCI-onsite | 2.3 ± 1.97 | 0.24     | 2.4 ± 2.08   | 0.23   | 2.08 ± 1.86  | 0.28             |
| CCI-web vs. usual care | -15.08 ± 2.19 | 1.5x10⁻¹² | -15.63 ± 2.3 | 1.1x10⁻¹¹ | -15.3 ± 2.08 | 3.8x10⁻¹⁴       |
| CCI-onsite vs. usual care | -17.49 ± 2.3 | 8.7x10⁻¹⁴ | -18.04 ± 2.3 | 6.7x10⁻¹⁵ | -17.38 ± 2.19 | 6.7x10⁻¹⁶       |
| CCI-all vs. usual care | -16.29 ± 1.97 | 4.4x10⁻¹⁶ | -16.83 ± 2.08 | 4.4x10⁻¹⁶ | -16.4 ± 1.86  | <10⁻¹⁶           |
| Hemoglobin A₁c (%)    |      |                        |            |          |              |                      |              |              |              |              |              |
| CCI-all education    | 204  | -1.29 (1.32)           | 6.20 (0.94)| <10⁻¹⁶| -1.32 ± 0.09 | <10⁻¹⁶          | -1.30 ± 0.09 | 6.29 ± 0.07 | <10⁻¹⁶    |
| CCI-web              | 98   | -1.18 (1.12)           | 6.25 (0.85)| <10⁻¹⁶| -1.20 ± 0.13 | <10⁻¹⁶          | -1.21 ± 0.11 | 6.31 ± 0.1  | <10⁻¹⁶    |
| CCI-onsite           | 106  | -1.40 (1.47)           | 6.15 (1.02)| <10⁻¹⁶| -1.43 ± 0.13 | <10⁻¹⁶          | -1.39 ± 0.13 | 6.28 ± 0.1  | <10⁻¹⁶    |
| Usual care           | 72   | 0.20 (1.35)            | 7.94 (1.82)| 0.21   | 0.22 ± 0.16  | 0.17             | 0.20 ± 0.15 | 7.84 ± 0.19 | 0.18      |
| CCI-web vs. CCI-onsite | 0.21 ± 0.18 | 0.24     | 0.22 ± 0.19  | 0.23   | 0.19 ± 0.17  | 0.28             |
| CCI-web vs. usual care | -1.38 ± 0.20 | 1.5x10⁻¹² | -1.43 ± 0.21 | 1.1x10⁻¹¹ | -1.40 ± 0.19 | 3.8x10⁻¹⁴       |
| CCI-onsite vs. usual care | -1.60 ± 0.21 | 8.7x10⁻¹⁴ | -1.65 ± 0.21 | 6.7x10⁻¹⁵ | -1.59 ± 0.20 | 6.7x10⁻¹⁶       |
| CCI-all vs. usual care | -1.49 ± 0.18 | 4.4x10⁻¹⁶ | -1.54 ± 0.19 | 4.4x10⁻¹⁶ | -1.50 ± 0.17  | <10⁻¹⁶           |
| Fasting glucose (mmol·L⁻¹) |      |                        |            |          |              |                      |              |              |              |              |              |
| CCI-all education    | 202  | -1.96 (3.2)            | 6.84 (1.87)| <10⁻¹⁶| -2.02 ± 0.26 | 6.0x10⁻¹⁵        | -1.95 ± 0.23 | 6.98 ± 0.17 | <10⁻¹⁶    |
| Group                        | N  | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) |
|------------------------------|----|-----------|--------------|-----------|--------------|-----------|--------------|
| CCI-web^a                    | 97 | -1.87 (2.99) | 6.63 (1.42) | 6.4x10^-10 | -1.94 ± 0.37 | 1.8x10^-7 | -1.92 ± 0.31 |
| CCI-onsite^a                 | 105 | -2.04 (3.41) | 7.04 (2.19) | 8.5x10^-10 | -2.1 ± 0.36 | 7.1x10^-9 | -1.98 ± 0.34 |
| Usual care^a                 | 71  | 0.59 (4.59)  | 9.3 (4.74)   | 0.28      | 0.81 ± 0.45  | 0.07      | 0.63 ± 0.49  |
| CCI-web vs. CCI-onsite^b     |     | 0.16 ± 0.45  | 0.71        | 0.16 ± 0.52 | 0.76         | 0.06 ± 0.46 | 0.9          |
| CCI-web vs. usual care^b     |     | -2.47 ± 0.62 | 7.5x10^-5   | -2.75 ± 0.59 | 2.6x10^-6   | -2.55 ± 0.58 | 1.1x10^-5 |
| CCI-onsite vs. usual care^b  |     | -2.63 ± 0.64 | 3.7x10^-5   | -2.91 ± 0.59 | 8.2x10^-7   | -2.6 ± 0.6   | 1.3x10^-5   |
| CCI-all vs. usual care^b     |     | -2.55 ± 0.59 | 1.5x10^-5   | -2.83 ± 0.53 | 7.9x10^-8   | -2.58 ± 0.54 | 2.1x10^-6   |

**Insulin, all (pmol·L^-1)**

| Group                        | N  | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) |
|------------------------------|----|-----------|--------------|-----------|--------------|-----------|--------------|
| CCI-all education^a          | 186| -75.01 (178.49) | 122.58 (169.6) | 9.9x10^9 | -9.14 ± 12.15 | 5.5x10^-14 | -73.62 ± 12.5 |
| CCI-web^a                    | 88 | -52.16 (202.59) | 123.83 (212.38) | 0.02      | -74.66 ± 18.2 | 4.1x10^-5 | -49.87 ± 19.38 |
| CCI-onsite^a                 | 98 | -95.56 (151.89) | 121.47 (120.08) | 4.7x10^-10 | -105.15 ± 16.53 | 2.2x10^-10 | -95.56 ± 15.9 |
| Usual care^a                 | 59 | 12.15 (210.23)  | 218.91 (239.46) | 0.66      | 36.88 ± 29.66 | 0.21      | 5.97 ± 24.52  |
| CCI-web vs. CCI-onsite^b     |     | 43.41 ± 26.46  | 0.1         | 30.49 ± 24.79 | 0.22       | 45.7 ± 25.07  | 0.07         |
| CCI-web vs. usual care^b     |     | -64.31 ± 34.86 | 0.07        | -111.54 ± 34.86 | 0.001     | -55.84 ± 31.25 | 0.07         |
| CCI-onsite vs. usual care^b  |     | -107.72 ± 31.39 | 0.0006      | -142.03 ± 34.38 | 8.1x10^-5 | -101.54 ± 29.24 | 0.0005      |
| CCI-all vs. usual care^b     |     | -87.23 (29.86) | 0.004       | -127.58 ± 32.43 | 0.0009   | -79.59 ± 27.5  | 0.004        |

**Insulin, excluding exogenous users (pmol·L^-1)**

| Group                        | N  | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) |
|------------------------------|----|-----------|--------------|-----------|--------------|-----------|--------------|
| CCI-all education^a          | 135| -90.49 (118.34) | 112.93 (99.94) | <10^-16   | -9.14 ± 12.15 | 6.0x10^-14 | -88.41 ± 10.9 |
| CCI-web^a                    | 60 | -76.19 (77.09)  | 102.44 (65.14) | 1.9x10^-14 | -74.66 ± 18.2 | 4.1x10^-5 | -67.99 ± 14.17 |
| CCI-onsite^a                 | 75 | -101.95 (142.51) | 121.33 (120.57) | 5.7x10^-10 | -105.15 ± 16.53 | 2.0x10^-10 | -107.3 ± 15.56 |
| Usual care^a                 | 25 | 41.25 (236.27)  | 240.85 (301.97) | 0.38      | 36.25 ± 29.72 | 0.22      | 33.68 ± 27.85 |
| CCI-web vs. CCI-onsite^b     |     | 25.77 ± 19.24  | 0.18        | 30.49 ± 24.79 | 0.22       | 39.31 ± 21.11 | 0.06         |
| CCI-web vs. usual care^b     |     | -117.51 ± 48.27 | 0.01        | -111.54 ± 34.93 | 0.002     | -101.67 ± 31.25 | 0.001        |
| CCI-onsite vs. usual care^b  |     | -143.28 ± 50.0  | 0.004       | -142.03 ± 34.35 | 3.6x10^-5 | -140.98 ± 31.95 | 1.0x10^-5    |
| CCI-all vs. usual care^b     |     | -131.82 ± 48.34 | 0.006       | -127.58 ± 32.43 | 8.4x10^-5 | -122.09 ± 29.93 | 4.6x10^-5    |

**C-peptide (nmol·L^-1)**

| Group                        | N  | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) | Mean (SD) | Median (IQR) |
|------------------------------|----|-----------|--------------|-----------|--------------|-----------|--------------|
| CCI-all education^a          | 185| -0.36 (0.57)  | 1.11 (0.59)  | <10^-16   | -0.34 ± 0.05 | 1.1x10^-13 | -0.33 ± 0.04 |
| CCI-web^a                    | 88 | -0.4 (0.51)   | 1.0 (0.52)   | 3.8x10^-13 | -0.39 ± 0.07 | 4.8x10^-9 | -0.37 ± 0.06 |
| CCI-onsite^a                 | 97 | -0.32 (0.62)  | 1.21 (0.63)  | 3.6x10^-7 | -0.3 ± 0.07  | 3.8x10^-6 | -0.3 ± 0.06  |
| Usual care^a                 | 59 | 0.08 (0.77)   | 1.43 (0.92)  | 0.41      | 0.02 ± 0.09  | 0.79      | 0.06 ± 0.09  |
| CCI-web vs. CCI-onsite^b     |     | -0.07 ± 0.08  | 0.37        | -0.09 ± 0.09 | 0.36       | -0.07 ± 0.08 | 0.36         |
| CCI-web vs. usual care^b     |     | -0.48 ± 0.12  | 2.8x10^-5   | -0.41 ± 0.11 | 0.0003     | -0.43 ± 0.11 | 3.5x10^-5   |
| CCI-onsite vs. usual care^b  |     | -0.4 ± 0.12   | 0.0007      | -0.32 ± 0.11 | 0.005      | -0.36 ± 0.11 | 0.0008      |
| CCI-all vs. usual care^b     |     | -0.44 ± 0.11  | 5.4x10^-5   | -0.37 ± 0.1  | 0.0004     | -0.4 ± 0.1   | 5.3x10^-5    |
### HOMA-IR (insulin derived), all

|                 | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|-----------------|-------------------|---------|------------|------------|------------------------|------------------------|---------------------------|-------------------------|
| Weight (kg)     | 179               | 84      | 95         | 56         | -92 ± 2.11             | -6.86 ± 2.21           | -8.32 ± 2.09              | -7.19 ± 1.9              |
| HOMA-IR (C peptide derived) | 129               | 57      | 72         | 25         | 2.25 ± 1.75            | 0.2                    | -11.01 ± 2.99             | -10.01 ± 2.72            |

### HOMA-IR (insulin derived), excluding exogenous insulin users

|                 | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|-----------------|-------------------|---------|------------|------------|------------------------|------------------------|---------------------------|-------------------------|
| Weight (kg)     | 170               | 79      | 91         | 47         | 0.15 ± 0.86            | 8.6                    | -5.39 ± 1.65              | -5.55 ± 1.65             |
| HOMA-IR (C peptide derived) | 184               | 84      | 100        | 69         | 0.04 ± 0.94           | 0.95                   | -1.11 ± 1.06              | -14.29 ± 1.04            |

### Weight-clinic (kg)

|                 | CCI-all education | CCI-web | CCI-onsite | Usual care | CCI-web vs. CCI-onsite | CCI-web vs. usual care | CCI-onsite vs. usual care | CCI-all vs. usual care |
|-----------------|-------------------|---------|------------|------------|------------------------|------------------------|---------------------------|-------------------------|
| Weight (kg)     | 184               | 84      | 100        | 69         | 0.87 ± 1.51            | 0.57                   | -13.81 ± 1.29             | -14.29 ± 1.04            |
| HOMA-IR (C peptide derived) | 184               | 84      | 100        | 69         | 0.87 ± 1.51            | 0.57                   | -13.81 ± 1.29             | -14.29 ± 1.04            |

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*Note:* All values are presented as mean ± standard deviation or mean ± 95% confidence interval.
### Systolic blood pressure (mmHg)

| Group                        | n  | LDL (mmHg) | CI   | Diastolic blood pressure (mmHg) | n  | LDL (mmHg) | CI   |
|------------------------------|----|------------|------|---------------------------------|----|------------|------|
| CCI-all education            | 187| -6.77 (16.3)| 125.84 (13.22) | 1.3x10^8 | -6.52 ± 1.24 | 16x10^7 | -6.36 ± 1.12 | 125.57 ± 0.91 | 1.3x10^8 |
| CCI-web                      | 87 | -7.38 (16.39)| 125.66 (10.72) | 2.7x10^5 | -7.31 ± 1.81 | 5.2x10^5 | -6.91 ± 1.63 | 125.72 ± 1.39 | 2.3x10^5 |
| CCI-onsite                   | 100| -6.24 (16.28)| 128.97 (15.6)  | 0.0001 | -5.8 ± 1.72 | 0.0007 | -5.85 ± 1.53 | 125.43 ± 1.18 | 0.0001 |
| Usual care                   | 67 | 0.25 (17.8) | 128.57 (11.82) | 0.91 | -0.45 ± 2.15 | 0.83  | -0.9 ± 2.07 | 129.01 ± 1.72 | 0.67  |
| CCI-web vs. CCI-onsite       | -1.14 ± 2.4 | 0.63 | -1.51 ± 2.49 | 0.55 | -1.06 ± 2.24 | 0.64  |
| CCI-web vs. usual care       | -7.63 ± 2.8 | 0.006 | -6.83 ± 2.84 | 0.02 | -6.01 ± 2.64 | 0.02  |
| CCI-onsite vs. usual care    | -6.49 ± 2.72 | 0.02 | -5.32 ± 2.84 | 0.06 | -4.95 ± 2.58 | 0.05  |
| CCI-all vs. usual care       | -7.02 (2.4) | 0.005 | -6.07 ± 2.55 | 0.02 | -5.46 ± 2.36 | 0.02  |

### Diastolic blood pressure (mmHg)

| Group                        | n  | Diastolic blood pressure (mmHg) | n  | Diastolic blood pressure (mmHg) |
|------------------------------|----|---------------------------------|----|---------------------------------|
| CCI-all education            | 187| -3.59 (9.33) | 78.0 (7.55) | 1.4x10^7 | -3.5 ± 0.7 | 6.2x10^7 | -3.51 ± 0.65 | 78.58 ± 0.56 | 7.2x10^8 |
| CCI-web                      | 87 | -3.36 (9.94) | 78.16 (7.66) | 0.002 | -3.3 ± 1.02 | 0.001 | -3.77 ± 1.0 | 78.83 ± 0.83 | 0.0002 |
| CCI-onsite                   | 100| -3.8 (8.81) | 77.86 (7.5)  | 1.6x10^5 | -3.67 ± 0.97 | 0.0001 | -3.28 ± 0.85 | 78.35 ± 0.75 | 0.0001 |
| Usual care                   | 67 | -0.12 (10.15) | 80.99 (9.59) | 0.92 | -0.39 ± 1.21 | 0.75  | -0.9 ± 1.2 | 81.12 ± 1.08 | 0.45  |
| CCI-web vs. CCI-onsite       | 0.44 ± 1.38 | 0.75  | 0.37 ± 1.4 | 0.79 | -0.49 ± 1.31 | 0.71  |
| CCI-web vs. usual care       | -3.24 ± 1.63 | 0.05  | -2.92 ± 1.6 | 0.07 | -2.87 ± 1.56 | 0.07  |
| CCI-onsite vs. usual care    | -3.68 ± 1.52 | 0.02  | -3.29 ± 1.6 | 0.04 | -2.38 ± 1.47 | 0.11  |
| CCI-all vs. usual care       | -3.47 ± 1.42 | 0.01  | -3.10±1.44 | 0.03 | -2.61 ± 1.37 | 0.06  |

### Total cholesterol (mmol-L^-1)

| Group                        | n  | Total cholesterol (mmol-L^-1) |
|------------------------------|----|--------------------------------|
| CCI-all education            | 186| 0.24 (0.93) | 4.92 (1.18) | 0.0004 | 0.24 ± 0.08 | 0.004 | 0.21 ± 0.07 | 4.97 ± 0.08 | 0.006 |
| CCI-web                      | 88 | 0.25 (0.93) | 4.83 (1.19) | 0.01 | 0.26±0.12 | 0.04 | 0.16 ± 0.11 | 4.95 ± 0.12 | 0.15  |
| CCI-onsite                   | 98 | 0.24 (0.94) | 5.0 (1.17)  | 0.01 | 0.23 ± 0.12 | 0.05 | 0.25 ± 0.1 | 4.99 ± 0.12 | 0.02  |
| Usual care                   | 59 | 0.00 (1.60) | 4.72 (1.62) | 0.99 | 0.0 ± 0.16 | 0.98 | -0.04 ± 0.18 | 4.69 ± 0.18 | 0.83  |
| CCI-web vs. CCI-onsite       | 0.01 ± 0.14 | 0.97  | 0.02 ± 0.17 | 0.89 | -0.09 ± 0.15 | 0.54  |
| CCI-web vs. usual care       | 0.25 ± 0.23 | 0.28  | 0.26 ± 0.20 | 0.19 | 0.2 ± 0.21 | 0.34  |
| CCI-onsite vs. usual care    | 0.24 ± 0.23 | 0.29  | 0.24 ± 0.20 | 0.25 | 0.29 ± 0.2 | 0.16  |
| CCI-all vs. usual care       | 0.25 ± 0.22 | 0.26  | 0.25 ± 0.18 | 0.17 | 0.24 ± 0.19 | 0.2   |

### LDL-C (mmol-L^-1)

| Group                        | n  | LDL-C (mmol-L^-1) |
|------------------------------|----|------------------|
| CCI-all education            | 172| 0.28 (0.83) | 2.87 (0.98) | 7.7x10^6 | 0.28 ± 0.07 | 2.6x10^5 | 0.26 ± 0.06 | 2.94 ± 0.07 | 5.1x10^5 |
| CCI-web                      | 83 | 0.30 (0.86) | 2.82 (1.01) | 0.002 | 0.31 ± 0.10 | 0.001 | 0.22 ± 0.09 | 2.91 ± 0.1 | 0.02  |
| CCI-onsite                   | 89 | 0.27 (0.80) | 2.93 (0.95) | 0.002 | 0.25 ± 0.09 | 0.007 | 0.29 ± 0.09 | 2.97 ± 0.1 | 0.0009 |
| Usual care                   | 48 | -0.28 (0.97) | 2.32 (0.8)  | 0.05 | -0.28 ± 0.13 | 0.03 | -0.28 ± 0.12 | 2.32 ± 0.12 | 0.02  |
| CCI-web vs. CCI-onsite       | 0.03 ± 0.13 | 0.81  | 0.06 ± 0.14 | 0.67 | -0.07 ± 0.13 | 0.59  |
| CCI-web vs. usual care       | 0.58 ± 0.17 | 0.0006 | 0.59±0.16 | 0.0004 | 0.51 ± 0.15 | 0.001  |
| CCI-onsite vs. usual care    | 0.55 ± 0.16 | 0.0009 | 0.53 ± 0.17 | 0.002 | 0.58 ± 0.15 | 0.0001 |
### Apo B (g·L⁻¹)

|                | CCI-all vs. usual care² | 0.56 ± 0.15 | 0.0003 | 0.56 ± 0.15 | 0.0002 | 0.54 ± 0.14 | 0.0001 |
|----------------|-------------------------|-------------|--------|-------------|--------|-------------|--------|
| CCI-all education¹ | 186                     | -0.01 (0.24)| 1.03 (0.29)| 0.69     | -0.0 ± 0.02 | 0.82     | -0.02 ± 0.02 | 1.04 ± 0.02 | 0.37
| CCI-web¹        | 88                      | -0.0 (0.2)  | 1.03 (0.29)| 0.95     | -0.0 ± 0.03 | 0.93     | -0.03 ± 0.03 | 1.05 ± 0.03 | 0.28
| CCI-onsite¹     | 98                      | -0.01 (0.27)| 1.03 (0.3) | 0.66     | -0.01 ± 0.03| 0.82     | -0.01 ± 0.03 | 1.02 ± 0.03 | 0.82
| Usual care¹     | 59                      | 0.02 (0.37)| 1.07 (0.39)| 0.75     | 0.0 ± 0.04  | 0.9      | 0.0 ± 0.04  | 1.06 ± 0.04 | 0.95
| CCI-web vs. CCI-onsite² | 0.01 ± 0.03     | 0.76     | 0.0 ± 0.04 | 0.92     | -0.02 ± 0.04| 0.56
| CCI-web vs. usual care² | -0.02 ± 0.05     | 0.75     | -0.01 ± 0.05| 0.87     | -0.03 ± 0.05| 0.53
| CCI-onsite vs. usual care² | -0.03 ± 0.06     | 0.62     | -0.01 ± 0.05| 0.81     | -0.01 ± 0.05| 0.86
| CCI-all vs. usual care² | -0.02 (0.05)    | 0.66     | -0.01 ± 0.05| 0.83     | -0.02 ± 0.05| 0.67

### HDL-C (mmol·L⁻¹)

|                | CCI-all vs. usual care² | 0.20 (0.31) | <10⁻¹⁶ | 0.19 ± 0.02 | <10⁻¹⁶ | 0.2 ± 0.02 | 1.29 ± 0.03 | <10⁻¹⁶ |
|----------------|-------------------------|-------------|--------|-------------|--------|-------------|-------------|
| CCI-all education¹ | 186                     | 0.16 (0.33) | 1.26 (0.42)| 2.9x10⁻⁶ | 0.17 ± 0.03| 7.3x10⁻⁸ | 0.18 ± 0.03 | 1.28 ± 0.04 | 2.9x10⁻⁸
| CCI-web¹        | 88                      | 0.23 (0.29)| 1.32 (0.41)| 7.1x10⁻¹¹| 0.21 ± 0.03| 5.3x10⁻¹²| 0.22 ± 0.03 | 1.31 ± 0.04 | 2.3x10⁻¹⁴
| Usual care¹     | 59                      | -0.04 (0.23)| 0.92 (0.32)| 0.15     | -0.02 ± 0.04| 0.69     | -0.03 ± 0.03| 0.95 ± 0.04 | 0.41
| CCI-web vs. CCI-onsite² | -0.06 ± 0.05     | 0.18     | -0.04 ± 0.04| 0.36     | -0.04 ± 0.04| 0.31
| CCI-web vs. usual care² | 0.21 ± 0.05     | 7.1x10⁻⁶ | 0.18 ± 0.05 | 0.0003  | 0.2 ± 0.05  | 1.0x10⁻⁵  |
| CCI-onsite vs. usual care² | 0.27 ± 0.04     | 1.1x10⁻¹⁰| 0.22 ± 0.05 | 1.3x10⁻⁵| 0.25 ± 0.04 | 2.3x10⁻⁸ |
| CCI-all vs. usual care² | 0.24 ± 0.04     | 1.7x10⁻¹⁰| 0.2 ± 0.05  | 9.9x10⁻⁶| 0.23 ± 0.04 | 1.3x10⁻⁸ |

### Triglycerides (mmol·L⁻¹)

|                | CCI-all vs. usual care² | -0.56 (1.9) | 1.71 (1.64)| <10⁻¹⁶ | -0.56 ± 0.18| 9.3x10⁻¹⁵| -0.54 ± 0.14| 1.67 ± 0.13| <10⁻¹⁶ |
|----------------|-------------------------|-------------|------------|--------|-------------|-------------|-------------|-------------|--------|
| CCI-all education¹ | 186                     | -0.36 (1.79)| 1.8 (1.77) | 2.2x10⁻⁶| -0.34 ± 0.25| 2.0x10⁻⁷ | -0.4 ± 0.2  | 1.73 ± 0.19 | 1.3x10⁻⁷
| CCI-web¹        | 88                      | -0.74 (1.97)| 1.62 (1.51)| 3.4x10⁻¹⁴| -0.78 ± 0.25| 6.0x10⁻¹³| -0.67 ± 0.21| 1.62 ± 0.18| 1.9x10⁻¹²
| Usual care¹     | 59                      | 0.34 (3.40)| 3.7 (5.67) | 0.22     | -0.35 ± 0.32| 0.48     | 0.32 ± 0.37 | 3.45 ± 0.55 | 0.43
| CCI-web vs. CCI-onsite² | 0.38 ± 0.28     | 0.16     | 0.44 ± 0.35 | 0.20     | 0.28 ± 0.29 | 0.34
| CCI-web vs. usual care² | -0.7 ± 0.48     | 6.9x10⁻⁵| -0.71 ± 0.41| 0.0004  | -0.71 ± 0.42| 8.7x10⁻⁵ |
| CCI-onsite vs. usual care² | -1.08 ± 0.48     | 4.8x10⁻⁸| 1.15 ± 0.42 | 4.2x10⁻⁶| -0.99 ± 0.42| 1.2x10⁻⁶ |
| CCI-all vs. usual care² | -0.9 ± 0.46     | 1.4x10⁻⁷| -0.92 ± 0.38| 7.5x10⁻⁶| -0.86 ± 0.39| 9.9x10⁻⁷ |

### Total/HDL-cholesterol

|                | CCI-all vs. usual care² | -0.47 (1.41)| 4.18 (1.71)| 4.1x10⁻⁶| -0.45 ± 0.16| 0.005    | -0.53 ± 0.12| 4.19 ± 0.13| 1.7x10⁻⁵ |
|----------------|-------------------------|-------------|------------|--------|-------------|--------|-------------|-------------|--------|
| CCI-all education¹ | 186                     | -0.37 (1.41)| 4.19 (1.57)| 0.02    | -0.35 ± 0.22| 0.11   | -0.47 ± 0.18| 4.2 ± 0.18 | 0.007 |
| CCI-web¹        | 88                      | -0.57 (1.4)| 4.17 (1.84) | 5.1x10⁻⁵| -0.54 ± 0.22| 0.01   | -0.58 ± 0.17| 4.17 ± 0.2  | 0.0008
| Usual care¹     | 59                      | 0.52 (3.45)| 5.96 (4.27)| 0.24    | 0.44 ± 0.29 | 0.13   | 0.42 ± 0.36 | 5.73 ± 0.43 | 0.24
| CCI-web vs. CCI-onsite² | 0.21 ± 0.21     | 0.31     | 0.19 ± 0.31 | 0.61     | 0.1 ± 0.25  | 0.67
| CCI-web vs. usual care² | -0.89 ± 0.47     | 0.06     | -0.80 ± 0.36| 0.03     | -0.89 ± 0.4  | 0.03

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### CCI-onsite vs. usual care

| Protein            | CCI-onsite | usual care | p-value |
|--------------------|------------|------------|---------|
| AST (µkat·L⁻¹)     | 1.09 ± 0.47| 0.36 ± 0.46| 0.02    |
| AST (µkat·L⁻¹)     | 1.00 ± 0.46| 0.36 ± 0.46| 0.03    |

### hsC-reactive protein (nmol·L⁻¹)

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 193            |
| CCI-web            | 98             |
| CCI-onsite         | 95             |
| Usual care         | 70             |

### ALT (µkat·L⁻¹)

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 201            |
| CCI-web            | 97             |
| CCI-onsite         | 104            |
| Usual care         | 71             |

### AST (µkat·L⁻¹)

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 201            |
| CCI-web            | 97             |
| CCI-onsite         | 104            |
| Usual care         | 71             |

### Alkaline phosphatase (µkat·L⁻¹)

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 200            |
| CCI-web            | 97             |
| CCI-onsite         | 103            |
| Usual care         | 71             |

### Table 1: Comparison of hsC-reactive protein levels across different education methods

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 193            |
| CCI-web            | 98             |
| CCI-onsite         | 95             |
| Usual care         | 70             |

### Table 2: Comparison of ALT levels across different education methods

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 201            |
| CCI-web            | 97             |
| CCI-onsite         | 104            |
| Usual care         | 71             |

### Table 3: Comparison of AST levels across different education methods

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 201            |
| CCI-web            | 97             |
| CCI-onsite         | 104            |
| Usual care         | 71             |

### Table 4: Comparison of Alkaline phosphatase levels across different education methods

| Group              | Value          |
|--------------------|----------------|
| CCI-all education  | 200            |
| CCI-web            | 97             |
| CCI-onsite         | 103            |
| Usual care         | 71             |

### Notes

- CCI-onsite refers to on-site education
- Usual care refers to standard care
- ALT and AST are markers of liver function
- hsC-reactive protein is related to inflammation
| Table | Description | Mean Value | Standard Deviation | p Value | Median Value |
|-------|-------------|------------|--------------------|---------|--------------|
| **Anion gap (mmol·L⁻¹)** | CCI-web vs. usual care<sup>b</sup> | -0.14 ± 0.03 | 2.0x10⁻⁵ | -0.16 ± 0.04 | 2.1x10⁻⁵ | -0.15 ± 0.03 | 5.4x10⁻⁶ |
| | CCI-onsite vs. usual care<sup>b</sup> | -0.19 ± 0.04 | 2.2x10⁻⁷ | -0.2 ± 0.04 | 1.5x10⁻⁷ | -0.19 ± 0.04 | 1.6x10⁻⁷ |
| | CCI-all vs. usual care<sup>b</sup> | -0.17 (0.03) | 6.3x10⁻⁸ | -0.18 ± 0.03 | 1.4x10⁻⁷ | -0.17 ± 0.03 | 3.1x10⁻⁸ |

| **Serum creatinine (µmol·L⁻¹)** | CCI-all education<sup>a</sup> | 202 | 73.37 (15.91) | 3.54 (15.91) | 0.0001 | -3.54 ± 0.88 | 74.26 ± 0.88 |
| | CCI-web<sup>a</sup> | 97 | 73.37 (17.68) | 0.0003 | -3.54 ± 1.77 | 0.03 | -3.54 ± 1.77 | 73.37 ± 1.77 |
| | CCI-onsite<sup>a</sup> | 105 | 74.26 (20.33) | 0.03 | -3.54 ± 1.77 | 0.04 | -3.54 ± 1.77 | 76.02 ± 1.77 |
| | Usual care<sup>a</sup> | 71 | 77.79 (18.56) | 0.56 | -2.65 ± 1.77 | 0.15 | -1.77 ± 1.77 | 78.68 ± 1.77 |
| | CCI-web vs. CCI-onsite<sup>b</sup> | -0.88 ± 1.77 | 0.76 | -0.88 ± 2.65 | 0.76 | 0.0 ± 1.77 | 0.96 |
| | CCI-web vs. usual care<sup>b</sup> | -2.65 ± 2.65 | 0.27 | -0.88 ± 2.65 | 0.66 | -1.77 ± 2.65 | 0.49 |
| | CCI-onsite vs. usual care<sup>b</sup> | -1.77 ± 2.65 | 0.43 | 0.0 ± 2.65 | 0.86 | -1.77 ± 2.65 | 0.55 |
| | CCI-all vs. usual care<sup>b</sup> | -2.65 ± 2.65 | 0.32 | -0.88 ± 2.65 | 0.73 | -1.77 ± 2.65 | 0.49 |

| **BUN (mmol·L⁻¹)** | CCI-all education<sup>a</sup> | 202 | 6.82 (2.78) | 0.76 (2.49) | 1.5x10⁻⁵ | 0.75 ± 0.17 | 1.6x10⁻⁵ | 0.79 ± 0.17 | 6.81 ± 0.19 | 5.5x10⁻⁶ |
| | CCI-web<sup>a</sup> | 97 | 6.62 (2.18) | 0.45 (1.73) | 0.01 | 0.46 ± 0.25 | 0.07 | 0.5 ± 0.2 | 6.51 ± 0.23 | 0.01 |
| | CCI-onsite<sup>a</sup> | 105 | 7.0 (3.25) | 1.04 (3.01) | 0.0004 | 1.04 ± 0.24 | 2.0x10⁻⁵ | 1.06 ± 0.28 | 7.08 ± 0.3 | 0.0001 |
| | Usual care<sup>a</sup> | 71 | 5.66 (2.11) | 0.07 (2.15) | 0.78 | 0.06 ± 0.3 | 0.85 | -0.01 ± 0.27 | 5.72 ± 0.26 | 0.97 |
| | CCI-web vs. CCI-onsite<sup>b</sup> | -0.6 ± 0.34 | 0.08 | -0.58 ± 0.35 | 0.1 | -0.56 ± 0.34 | 0.1 |
| | CCI-web vs. usual care<sup>b</sup> | 0.38 ± 0.31 | 0.22 | 0.41 ± 0.39 | 0.29 | 0.51 ± 0.34 | 0.13 |
| | CCI-onsite vs. usual care<sup>b</sup> | 0.97 ± 0.39 | 0.01 | 0.99 ± 0.4 | 0.01 | 1.07 ± 0.39 | 0.005 |
| | CCI-all vs. usual care<sup>b</sup> | 0.69 (0.29) | 0.03 | 0.69 (0.32) | 0.05 | 0.8 ± 0.32 | 0.01 |

| **eGFR (mL·s⁻¹·m⁻²)** | CCI-all education<sup>a</sup> | 202 | 1.38 (0.2) | 0.03 (0.15) | 0.003 | 0.03 ± 0.01 | 0.009 | 0.03 ± 0.01 | 1.38 ± 0.01 | 0.005 |
| | CCI-web<sup>a</sup> | 97 | 1.4 (0.17) | 0.03 (0.14) | 0.01 | 0.03 ± 0.02 | 0.04 | 0.03 ± 0.01 | 1.4 ± 0.02 | 0.03 |
| | CCI-onsite<sup>a</sup> | 105 | 1.36 (0.23) | 0.03 (0.17) | 0.08 | 0.03 ± 0.02 | 0.1 | 0.03 ± 0.02 | 1.35 ± 0.02 | 0.07 |
| | Usual care<sup>a</sup> | 71 | 1.34 (0.22) | 0.01 (0.19) | 0.51 | 0.02 ± 0.02 | 0.36 | 0.01 ± 0.02 | 1.34 ± 0.02 | 0.48 |
| | CCI-web vs. CCI-onsite<sup>b</sup> | 0.01 ± 0.02 | 0.79 | 0.01 ± 0.02 | 0.77 | 0.0 ± 0.02 | 0.89 |
| | CCI-web vs. usual care<sup>b</sup> | 0.02 ± 0.03 | 0.42 | 0.02 ± 0.03 | 0.56 | 0.02 ± 0.03 | 0.51 |
| | CCI-onsite vs. usual care<sup>b</sup> | 0.01 ± 0.03 | 0.58 | 0.01 ± 0.03 | 0.75 | 0.01 ± 0.03 | 0.6 |
| | CCI-all vs. usual care<sup>b</sup> | 0.03 ± 0.02 | 0.28 | 0.01 ± 0.02 | 0.61 | 0.02 ± 0.02 | 0.51 |

| **Anion gap (mmol·L⁻¹)** | CCI-all education<sup>a</sup> | 201 | 7.08 (1.75) | 0.29 (2.02) | 0.04 | 0.28 ± 0.15 | 0.06 | 0.28 ± 0.14 | 7.13 ± 0.12 | 0.04 |
| | CCI-web<sup>a</sup> | 97 | 7.04 (1.77) | 0.07 (1.97) | 0.72 | 0.11 ± 0.22 | 0.61 | 0.12 ± 0.2 | 7.05 ± 0.18 | 0.55 |
| | CCI-onsite<sup>a</sup> | 104 | 7.12 (1.74) | 0.49 (2.06) | 0.02 | 0.45 ± 0.21 | 0.1 | 0.43 ± 0.19 | 7.19 ± 0.17 | 0.02 |
| | Usual care<sup>a</sup> | 71 | 7.75 (1.97) | 0.83 (2.44) | 0.04 | 0.84 ± 0.26 | 0.001 | 0.81 ± 0.26 | 7.75 ± 0.22 | 0.002 |
|                          | CCI-web vs. CCI-onsite<sup>b</sup> | CCI-web vs. usual care<sup>b</sup> | CCI-onsite vs. usual care<sup>b</sup> | CCI-all vs. usual care<sup>b</sup> |
|--------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                          | -0.42 ± 0.28                    | 0.14 -0.35 ± 0.3 0.26 -0.31 ± 0.28 0.26 | 0.33 -0.38 ± 0.35 0.28 -0.38 ± 0.33 0.25 | -0.54 ± 0.3 |

**CO<sub>2</sub> (mmol·L<sup>-1</sup>)**

|                          | CCI-all education<sup>a</sup> | CCI-web<sup>a</sup> | CCI-onsite<sup>a</sup> | Usual care<sup>a</sup> | CCI-web vs. CCI-onsite<sup>b</sup> | CCI-web vs. usual care<sup>b</sup> | CCI-onsite vs. usual care<sup>b</sup> | CCI-all vs. usual care<sup>b</sup> |
|--------------------------|-----------------------------|------------------|----------------------|----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                          | 202 0.12 (2.26) 28.06 (2.29) 0.45 0.16 ± 0.18 0.38 0.18 ± 0.16 27.94 ± 0.16 0.27 | 97 0.44 (2.02) 28.41 (2.12) 0.03 0.41 ± 0.25 0.11 0.45 ± 0.22 28.34 ± 0.22 0.04 | 105 -0.18 (2.43) 27.74 (2.41) 0.45 -0.08 ± 0.25 0.73 -0.07 ± 0.24 27.57 ± 0.23 0.77 | 71 0.17 (2.97) 28.23 (2.58) 0.63 -0.2 ± 0.3 0.51 0.04 ± 0.33 28.12 ± 0.29 0.9 | 0.62 ± 0.31 0.05 0.49 ± 0.35 0.16 0.52 ± 0.32 0.11 | 0.27 ± 0.41 0.5 0.6 ± 0.4 0.13 0.41 ± 0.4 0.3 | -0.35 ± 0.42 0.41 0.11 ± 0.4 0.79 -0.11 ± 0.41 0.78 | -0.05 ± 0.3 0.9 0.36 ± 0.36 0.32 0.14 ± 0.37 0.71 |

**Uric acid (µmol·L<sup>-1</sup>)**

|                          | CCI-all education<sup>a</sup> | CCI-web<sup>a</sup> | CCI-onsite<sup>a</sup> | Usual care<sup>a</sup> | CCI-web vs. CCI-onsite<sup>b</sup> | CCI-web vs. usual care<sup>b</sup> | CCI-onsite vs. usual care<sup>b</sup> | CCI-all vs. usual care<sup>b</sup> |
|--------------------------|-------------------------------|-------------------|-------------------------|-------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                          | 202 0.59 (70.79) 349.18 (91.01) 0.91 1.78 ± 4.76 0.72 1.78 ± 4.76 349.77 ± 5.95 0.67 | 98 -0.59 (77.93) 360.48 (83.87) 0.93 0.59 ± 7.14 0.95 1.78 ± 7.14 356.91 ± 8.33 0.8 | 104 1.78 (63.65) 338.47 (95.77) 0.77 2.97 ± 7.14 0.65 2.38 ± 6.54 343.23 ± 8.92 0.72 | 71 -10.71 (64.24) 320.03 (85.06) 0.15 -16.66 ± 8.92 0.06 -11.9 ± 7.73 322.41 ± 10.11 0.13 | -2.38 ± 10.11 0.8 -2.97 ± 10.11 0.79 -0.59 ± 9.52 0.96 | 10.11 ± 10.71 0.35 17.25 ± 11.3 0.13 13.68 ± 10.71 0.21 | 12.49 ± 10.11 0.2 20.22 ± 11.3 0.08 14.28 ± 10.11 0.16 | 11.3 ± 8.92 0.21 18.44 ± 10.11 0.07 13.68 ± 8.92 0.13 |

**TSH (mIU·L<sup>-1</sup>)**

|                          | CCI-all education<sup>a</sup> | CCI-web<sup>a</sup> | CCI-onsite<sup>a</sup> | Usual care<sup>a</sup> | CCI-web vs. CCI-onsite<sup>b</sup> | CCI-web vs. usual care<sup>b</sup> | CCI-onsite vs. usual care<sup>b</sup> | CCI-all vs. usual care<sup>b</sup> |
|--------------------------|---------------------------------|------------------|----------------------|----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
|                          | 200 -0.41 (1.62) 1.9 (1.1) 0.0004 -0.4 ± 0.11 0.0002 -0.42 ± 0.1 1.91 ± 0.08 5.3x10<sup>-5</sup> | 98 -0.44 (1.83) 2.02 (1.19) 0.02 -0.45 ± 0.15 0.003 -0.39 ± 0.16 1.99 ± 0.11 0.01 | 102 -0.38 (1.4) 1.78 (0.99) 0.006 -0.35 ± 0.15 0.02 -0.45 ± 0.14 1.83 ± 0.1 0.001 | 70 -0.09 (0.99) 2.01 (0.99) 0.47 -0.09 ± 0.19 0.64 0.0 ± 0.12 1.96 ± 0.12 0.98 | -0.06 ± 0.23 0.8 -0.1 ± 0.21 0.64 0.06 ± 0.21 0.77 | -0.35 ± 0.22 0.11 -0.36 ± 0.24 0.14 -0.38 ± 0.2 0.05 | -0.3 ± 0.18 0.1 -0.26 ± 0.25 0.29 -0.45 ± 0.18 0.02 | -0.33 ± 0.16 0.05 -0.31 ± 0.22 0.15 -0.42 ± 0.16 0.01 |

**Free T4 (pmol·L<sup>-1</sup>)**

|                          | CCI-all education<sup>a</sup> | CCI-web<sup>a</sup> | CCI-onsite<sup>a</sup> |
|--------------------------|---------------------------------|------------------|----------------------|
|                          | 202 0.13 (2.32) 11.97 (2.45) 0.7 0.0 ± 0.26 0.83 0.13 ± 0.13 11.97 ± 0.13 0.58 | 98 0.26 (2.32) 11.97 (2.06) 0.33 0.26 ± 0.26 0.44 0.13 ± 0.26 11.97 ± 0.26 0.51 | 104 -0.13 (2.45) 11.84 (2.7) 0.72 -0.13 ± 0.26 0.64 0.0 ± 0.26 11.84 ± 0.26 0.88 |
### Thiazolidinedione (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 0.26 (4.25)       | 0.26 ± 0.39                  | 0.0 ± 0.51                    | -0.26 ± 0.51                  | -0.13 (0.0)                 |

### Sulfonylurea (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 27.98 ± 3.05      | 2.2x10\(^{16}\)              | 2.6x10\(^{10}\)              | -0.26 ± 0.51                  | -0.13 ± 0.51                |

### Insulin (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 15.14 ± 2.43      | 2.8x10\(^{10}\)              | 9.3x10\(^{15}\)              | 3.0 ± 0.46                    | 0.4 ± 0.54                  |

### Thiazolidinedione (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 0.46 ± 0.46       | -1.47 ± 0.9                  | 0.1                           | -1.1 ± 0.91                   | 0.42 ± 0.49                 |

### Any diabetes medication, excluding metformin (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 29.68 ± 2.94      | <10\(^{16}\)                | -23.67 ± 2.7                  | 0.0 ± 0.0                     | 8.3x10\(^{10}\)             |

### Sulfonylurea (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 16.74 ± 2.4       | 2.6x10\(^{10}\)              | 9.3x10\(^{15}\)              | 3.0 ± 0.46                    | 0.4 ± 0.54                  |

### Insulin (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 16.74 ± 2.4       | 2.6x10\(^{10}\)              | 9.3x10\(^{15}\)              | 3.0 ± 0.46                    | 0.4 ± 0.54                  |

### Thiazolidinedione (%)

|                      | Usual care\(^a\) | CCI-web vs. CCI-onsite\(^b\) | CCI-web vs. usual care\(^a\) | CCI-onsite vs. usual care\(^b\) | CCI-all vs. usual care\(^b\) |
|----------------------|-------------------|------------------------------|-------------------------------|-------------------------------|-----------------------------|
|                      | 0.42 ± 0.49       | -1.1 ± 0.91                  | 0.1                           | -1.1 ± 0.91                   | 0.42 ± 0.49                 |
|                  | CCI-onsite<sup>a</sup> | Usual care<sup>b</sup> | CCI-web vs. CCI-onsite<sup>b</sup> | CCI-web vs. usual care<sup>b</sup> | CCI-onsite vs. usual care<sup>b</sup> | CCI-all vs. usual care<sup>b</sup> |
|-----------------|-------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| Metformin (%)   | 0.0 (13.3)              | 0.0 (0.0)               | -2.88 ± 2.07                      | -2.88 ± 1.65                      | 0.0 ± 1.25                        | -1.38 ± 1.02                      |
| SGLT-2 (%)      | 0.88 ± 0.88             | 1.37 ± 1.37             | -1.14 (31.93)                     | -1.14 ± 4.51                      | 0.0 ± 3.93                        | -6.63 ± 3.93                      |
| CCI-all education<sup>a</sup> | 0.92 ± 0.65             | 0.0 ± 0.0               | 0.003                             | 1.75 ± 1.24                       | 0.0 ± 28.87                       | 15.07 ± 4.22                      |
| CCI-web<sup>a</sup> | 1.5X10<sup>5</sup>      | 4.89 ± 4.06             | 0.35                              | 10.96 ± 3.68                      | 2.47 ± 4.05                       | 10.74 ± 3.51                      |
| Usual care<sup>a</sup> | -9.63 ± 2.04            | 1.13 ± 3.72             | 0.76                              | 2.97 ± 4.05                       | 0.87 ± 3.17                       | 15.07 ± 4.21                      |
| CCI-web vs. CCI-onsite<sup>b</sup> | -9.26 ± 1.88            | 0.87 ± 3.17             | 0.01                              | 4.34 ± 3.73                       | 15.07 ± 4.21                      | 0.01 ± 5.04                       |
| CCI-web vs. usual care<sup>b</sup> | 1.1X10<sup>6</sup>      | 4.39 ± 4.06             | 0.22                              | 10.74 ± 3.51                      | 15.07 ± 4.21                      | 1.38 ± 1.02                       |
| CCI-onsite vs. usual care<sup>b</sup> | -3.26 ± 2.45            | 4.34 ± 3.73             | 0.46                              | 6.29 ± 1.66                       | 1.01 ± 5.04                       | 1.38 ± 1.02                       |
| CCI-all vs. usual care<sup>b</sup> | 9.0X10<sup>7</sup>      | 7.69 ± 4.28             | 0.67                              | 6.65 ± 2.44                       | 1.01 ± 5.04                       | 2.87 ± 2.11                       |
| DPP-4 (%)       | 0.92 ± 0.65             | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-all education<sup>a</sup> | 3.67 ± 2.04             | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-web<sup>a</sup> | 6.73 ± 2.47             | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-onsite<sup>a</sup> | 6.14 ± 2.26             | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| Usual care<sup>a</sup> | 10.96 ± 3.68            | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-web vs. CCI-onsite<sup>b</sup> | -3.69 ± 2.21            | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-web vs. usual care<sup>b</sup> | -3.69 ± 2.21            | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-onsite vs. usual care<sup>b</sup> | -3.69 ± 2.21            | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-all vs. usual care<sup>b</sup> | -3.69 ± 2.21            | 6.42 ± 1.66             | 0.12                              | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| GLP-1 (%)       | 0.92 ± 0.65             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-all education<sup>a</sup> | 0.92 ± 0.65             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-web<sup>a</sup> | 0.92 ± 0.65             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-onsite<sup>a</sup> | 0.92 ± 0.65             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| Usual care<sup>a</sup> | 2.74 ± 3.51             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-web vs. CCI-onsite<sup>b</sup> | 1.15 ± 2.31             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-web vs. usual care<sup>b</sup> | 1.15 ± 2.31             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-onsite vs. usual care<sup>b</sup> | 1.15 ± 2.31             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| CCI-all vs. usual care<sup>b</sup> | 1.15 ± 2.31             | 13.76 ± 2.34            | 0.7                               | 2.74 ± 3.51                       | 2.47 ± 4.05                       | 2.87 ± 2.11                       |
| Metformin (%)   | 7.34 (46.45)            | 64.22 ± 3.25            | 0.02                              | 7.14 ± 3.0                        | 0.02                              | 6.34 ± 3.06                       |
|                      | Value          | Value          | Value          | Value          | Value          | Value          | Value          | Value          | Value          | Value          |
|----------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| **ACE or ARB (%)**    |                |                |                |                |                |                |                |                |                |                |
| CCI-all education²   | 218            | -3.67 (34.42)  | 48.17 ± 3.39   | 0.12           | -3.64 ± 2.42   | 0.13           | -3.28 ± 2.35   | 46.66 ± 3.23   | 0.16           |                |
| CCI-web²             | 104            | -3.85 (36.67)  | 47.12 ± 4.92   | 0.28           | -3.65 ± 3.5    | 0.3            | -2.76 ± 3.56   | 44.81 ± 4.67   | 0.44           |                |
| CCI-onsite²          | 114            | -3.51 (32.4)   | 49.12 ± 4.7    | 0.25           | -3.64 ± 3.37   | 0.28           | -3.75 ± 3.12   | 48.37 ± 4.5    | 0.23           |                |
| Usual care²          | 73             | 9.59 (37.88)   | 64.38 ± 5.64   | 0.03           | 9.51 ± 4.3     | 0.03           | 8.77 ± 4.3     | 67.38 ± 5.42   | 0.04           |                |
| CCI-web vs. CCI-onsite² | -0.34 ± 4.7 | 0.94           | -0.01 ± 4.85   | 0.99           | 0.99 ± 4.7     | 0.83           |                |                |                |                |
| CCI-web vs. usual care² | -13.44 ± 5.71 | 0.02           | -13.15 ± 5.59  | 0.02           | -11.53 ± 5.58  | 0.04           |                |                |                |                |
| CCI-onsite vs. usual care² | -13.1 ± 5.37 | 0.01           | -13.15 ± 5.58  | 0.02           | -12.53 ± 5.31  | 0.02           |                |                |                |                |
| CCI-all vs. usual care² | -13.26 ± 5.01 | 0.008          | -13.15 ± 5.02  | 0.009          | -12.05 ± 4.9   | 0.01           |                |                |                |                |
| **Statin (%)**       |                |                |                |                |                |                |                |                |                |                |
| CCI-all education²   | 218            | -11.93 (42.34) | 56.42 ± 3.37   | 3.2x10⁻⁵       | -11.94 ± 2.89  | 3.6x10⁻⁵       | -11.37 ± 2.84  | 55.75 ± 3.3    | 6.3x10⁻⁵       |                |
| CCI-web²             | 104            | -9.62 (40.67)  | 55.77 ± 4.89   | 0.02           | -9.85 ± 4.16   | 0.02           | -9.8 ± 4.01    | 55.24 ± 4.75   | 0.01           |                |
| CCI-onsite²          | 114            | -14.04 (43.88) | 57.02 ± 4.66   | 0.0006         | -13.87 ± 4.01  | 0.0005         | -12.82 ± 4.02  | 56.22 ± 4.61   | 0.001          |                |
| Usual care²          | 73             | 9.59 (41.38)   | 60.27 ± 5.77   | 0.05           | 9.62 ± 5.12    | 0.06           | 8.34 ± 4.82    | 61.18 ± 5.6    | 0.08           |                |
| CCI-web vs. CCI-onsite² | 4.42 ± 5.73 | 0.44           | 4.02 ± 5.78    | 0.49           | 3.01 ± 5.68    | 0.6            |                |                |                |                |
| CCI-web vs. usual care² | -19.2 ± 6.27 | 0.002          | -19.53 ± 6.66  | 0.004          | -18.14 ± 6.27  | 0.004          |                |                |                |                |
| CCI-onsite vs. usual care² | -23.62 ± 6.35 | 0.0002         | -23.55 ± 6.64  | 0.0005         | -21.15 ± 6.27  | 0.0007         |                |                |                |                |
| CCI-all vs. usual care² | -21.52 ± 5.63 | 0.0001         | -21.55 ± 5.98  | 0.0004         | -19.7 ± 5.59   | 0.0004         |                |                |                |                |
| **Blood pressure medication (%)** |                |                |                |                |                |                |                |                |                |                |
| CCI-all education²   | 218            | 0.92 (27.14)   | 28.9 ± 3.08    | 0.62           | 1.53 ± 1.88    | 0.42           | 0.68 ± 1.86    | 29.95 ± 2.94   | 0.71           |                |
| CCI-web²             | 104            | -0.96 (26.05)  | 29.81 ± 4.51   | 0.71           | -0.49 ± 2.71   | 0.86           | -1.18 ± 2.62   | 31.26 ± 4.3    | 0.65           |                |
| CCI-onsite²          | 114            | 2.63 (28.1)    | 28.07 ± 4.23   | 0.32           | 3.4 ± 2.62     | 0.19           | 2.41 ± 2.63    | 28.73 ± 4.04   | 0.36           |                |
| Usual care²          | 73             | 5.48 (28.34)   | 21.92 ± 4.88   | 0.1            | 3.66 ± 3.34    | 0.27           | 4.94 ± 3.29    | 23.37 ± 4.73   | 0.13           |                |
| CCI-web vs. CCI-onsite² | -3.59 ± 3.67 | 0.33           | -3.89 ± 3.76   | 0.3            | -3.59 ± 3.71   | 0.33           |                |                |                |                |
| CCI-web vs. usual care² | -6.44 ± 4.19 | 0.12           | -4.09 ± 4.34   | 0.35           | -6.13 ± 4.21   | 0.15           |                |                |                |                |
| CCI-onsite vs. usual care² | -2.85 ± 4.23 | 0.5            | -0.19 ± 4.33   | 0.96           | -2.54 ± 4.21   | 0.55           |                |                |                |                |
| CCI-all vs. usual care² | -4.56 ± 3.79 | 0.23           | -2.13 ± 3.9    | 0.59           | -4.26 ± 3.78   | 0.26           |                |                |                |                |
### Diuretics (%)

| Group               | N   | Mean (SD) | T-Value | P-Value | Mean (SD) | T-Value | P-Value | Mean (SD) | T-Value | P-Value |
|---------------------|-----|-----------|---------|---------|-----------|---------|---------|-----------|---------|---------|
| CCI-all education   | 218 | -9.63 (41.28) | 0.0006  | 9.52 (2.69) | 0.0004  | -9.55 (2.73) | 0.0005 | 31.17 (3.07) |         |         |
| CCI-web             | 104 | -10.58 (39.21) | 0.006   | -10.84 (3.88) | 0.005   | -10.53 (3.81) | 0.006 | 30.86 (4.42) |         |         |
| CCI-onsite          | 114 | -8.77 (43.24) | 0.04    | -8.3 (3.74) | 0.03    | -8.65 (3.9) | 0.03  | 29.38 (4.29) |         |         |
| Usual care          | 73  | 5.48 (32.87)  | 0.16    | 5.15 (4.77) | 0.28    | 3.16 (4.07)  | 0.44  | 33.04 (5.3)  |         |         |
| CCI-web vs. CCI-onsite | 104 | -1.81 (5.58)  | 0.75    | -2.53 (5.39) | 0.64    | -1.88 (5.45) | 0.73  |          |         |         |
| CCI-web vs. usual care | 160 | -16.06 (5.44) | 0.003   | -15.95 (6.21) | 0.01    | -13.69 (5.57) | 0.01  |          |         |         |
| CCI-onsite vs. usual care | 114 | -14.25 (5.59) | 0.01    | -13.42 (6.2) | 0.03    | -11.81 (5.64) | 0.04  |          |         |         |
| CCI-all vs. usual care | 173 | -15.11 (4.76) | 0.001   | -14.68 (5.58) | 0.009   | -12.71 (4.9) | 0.009 |          |         |         |

*a* Means (standard deviations) are presented. Sample sizes, means, and significance levels refer to subjects with baseline and one-year measurements for completers, and to 349 subjects (262 intervention and 87 usual care) for all starters. Significance levels for completers refer to one-sample t-test with or without adjustment. Untransformed triglyceride and hsc-reactive protein values are presented, however, their statistical significances were based on their log-transformed values. All CC refers to the CCI-web and CCI-onsite combined.

*b* Mean differences ± one standard error. Significance levels refer to two-sample t-test or analysis of covariance for the differences.

*c* Adjusted for sex, age, baseline BMI, baseline insulin use (user vs. non-user), and African-American race.

*d* Imputed values based on 700 iterations from multivariate normal regression.

*e* A significance level of $P<0.0017$ ensures overall simultaneous significance of $P≤0.05$ over the 30 variables using Bonferroni correction.
Table S3. Effect of the intervention during the first 70 and next 295 days.

|                  | N       | Mean change ± SE | Significance of change | % Effect of first 70 days |
|------------------|---------|------------------|------------------------|--------------------------|
|                  | First 70 days | Next 295 days | 1 year | First 70 | Next 295 | days | 1 year | First 70 | Next 295 | days | 1 year | First 70 | Next 295 | days |
| ΔBeta-hydroxybutyrate (mmol·L⁻¹) |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| All starters (Dropouts imputed)⁹ | 262     | 0.12 ± 0.02     | 0.37 ± 0.04 | -0.24 ± 0.04 | 5.8x10⁻⁷ | <10⁻¹⁶ | 1.3x10⁻¹⁰ | 296%    |
| Completers       |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| CCI-all education ⁹ | 172     | 0.13 ± 0.03     | 0.37 ± 0.04 | -0.24 ± 0.04 | 7.3x10⁻⁷ | <10⁻¹⁶ | 4.9x10⁻⁹ | 278%    |
| CCI-web ⁹        | 79      | 0.14 ± 0.04     | 0.34 ± 0.06 | -0.2 ± 0.06  | 0.0003  | 2.0x10⁻⁸ | 0.0005 | 244%    |
| CCI-onsite ⁹     | 93      | 0.13 ± 0.04     | 0.4 ± 0.06  | -0.27 ± 0.06 | 0.0006  | 4.6x10⁻¹² | 2.1x10⁻⁶ | 309%    |
| Difference: web-onsite ⁹ |        | 0.01 ± 0.05     | -0.06 ± 0.08 | 0.07 ± 0.08  |         |         |       |         |
| ΔHemoglobin A₁c (mmol·mol⁻¹) |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| All starters (Dropouts imputed)⁹ | 262     | -14.21 ± 0.98   | -12.02 ± 0.77 | -2.3 ± 0.55  | <10⁻¹⁶ | <10⁻¹⁶ | 7.7x10⁻⁵ | 84%     |
| Completers       |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| CCI-all education ⁹ | 199     | -14.1 ± 0.98    | -11.91 ± 0.87 | -2.3 ± 0.55  | <10⁻¹⁶ | <10⁻¹⁶ | 6.2x10⁻⁵ | 84%     |
| CCI-web ⁹        | 96      | -13.12 ± 1.2    | -12.24 ± 1.09 | -0.77 ± 0.77 | <10⁻¹⁶ | <10⁻¹⁶ | 0.3     | 93%     |
| CCI-onsite ⁹     | 103     | -15.19 ± 1.64   | -11.59 ± 1.31 | -3.61 ± 0.77 | <10⁻¹⁶ | <10⁻¹⁶ | 5.4x10⁻⁶ | 76%     |
| Difference: web-onsite ⁹ |        | 2.08 ± 2.08     | -0.77 ± 1.64  | 2.84 ± 1.09† |         |         |       |         |
| ΔHemoglobin A₁c (%) |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| All starters (Dropouts imputed)⁹ | 262     | -1.30 ± 0.09    | -1.1 ± 0.07  | -0.21 ± 0.05 | <10⁻¹⁶ | <10⁻¹⁶ | 7.7x10⁻⁵ | 84%     |
| Completers       |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| CCI-all education ⁹ | 199     | -1.29 ± 0.09    | -1.09 ± 0.08 | -0.21 ± 0.05 | <10⁻¹⁶ | <10⁻¹⁶ | 6.2x10⁻⁵ | 84%     |
| CCI-web ⁹        | 96      | -1.20 ± 0.11    | -1.12 ± 0.10 | -0.07 ± 0.07 | <10⁻¹⁶ | <10⁻¹⁶ | 0.3     | 93%     |
| CCI-onsite ⁹     | 103     | -1.39 ± 0.15    | -1.06 ± 0.12 | -0.33 ± 0.07 | <10⁻¹⁶ | <10⁻¹⁶ | 5.4x10⁻⁶ | 76%     |
| Difference: web-onsite ⁹ |        | 0.19 ± 0.19     | -0.07 ± 0.15  | 0.26 ± 0.10† |         |         |       |         |
| ΔFasting glucose (mmol·L⁻¹) |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| All starters (Dropouts imputed)⁹ | 262     | -1.95 ± 0.23    | -1.76 ± 0.21 | -0.19 ± 0.17 | <10⁻¹⁶ | <10⁻¹⁶ | 0.25    | 90%     |
| Completers       |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| CCI-all education ⁹ | 196     | -1.97 ± 0.23    | -1.76 ± 0.22 | -0.2 ± 0.15  | <10⁻¹⁶ | 8.9x10⁻¹⁶ | 0.17    | 89%     |
| CCI-web ⁹        | 95      | -1.89 ± 0.31    | -1.51 ± 0.27 | -0.38 ± 0.17 | 8.6x10⁻¹⁰ | 2.6x10⁻⁸ | 0.03    | 79%     |
| CCI-onsite ⁹     | 101     | -2.04 ± 0.34    | -2.01 ± 0.34 | -0.03 ± 0.24 | 1.6x10⁻⁹ | 3.5x10⁻⁹ | 0.89    | 98%     |
| Difference: web-onsite ⁹ |        | 0.16 ± 0.46     | 0.5 ± 0.43   | -0.35 ± 0.29 |         |         |       |         |
| ΔInsulin, all (pmol·L⁻¹) |         |                 |          |           |         |      |       |           |         |      |       |           |         |      |       |
| All starters (Dropouts imputed)⁹ | 262     | -73.62 ± 12.5   | -59.24 ± 7.92 | -14.38 ± 12.08 | 4.3x10⁻⁹ | 6.1x10⁻¹⁴ | 0.23    | 81%     |
Completers

|                | N  |        |        |        |        |        |        |        |
|----------------|----|--------|--------|--------|--------|--------|--------|--------|
| CCI-all education | 172 | -74.45 ± 13.68 | -63.82 ± 8.89 | -10.63 ± 12.78 | 5.1x10^{-8} | 6.5x10^{-13} | 0.41 | 85% |
| CCI-web         | 79  | -48.96 ± 23.82 | -66.05 ± 11.18 | 17.15 ± 23.89  | 0.04    | 3.4x10^{-9}  | 0.47 | 135%|
| CCI-onsite      | 93  | -96.19 ± 14.86 | -61.95 ± 13.47 | -34.24 ± 11.74 | 1.0x10^{-10} | 4.1x10^{-6} | 0.004 | 64% |
| Difference: web-onsite | 47.23 ± 28.13 | -4.1 ± 17.5 | 51.39 ± 26.6* |

**ΔInsulin, excluding exogenous users (pmol·L⁻¹)**

All starters (Dropouts imputed)

|                | N  |        |        |        |        |        |        |        |
|----------------|----|--------|--------|--------|--------|--------|--------|--------|
| CCI-all education | 123 | -13.01 ± 1.43 | -9.38 ± 1.41 | -3.63 ± 1.31  | <10^{-16} | 2.7x10^{-11} | 0.005 | 72% |
| CCI-web         | 53  | -10.56 ± 1.50 | -10.21 ± 2.16 | -0.35 ± 1.32  | 1.8x10^{-12} | 2.4x10^{-6} | 0.79  | 96% |
| CCI-onsite      | 70  | -14.87 ± 2.23 | -8.75 ± 1.86 | -6.12 ± 2.02  | 2.7x10^{-11} | 2.7x10^{-11} | 0.002 | 58% |
| Difference: web-onsite | 4.31 ± 2.69 | -1.46 ± 2.86 | 5.77 ± 2.42* |

**ΔC-peptide (nmol·L⁻¹)**

All starters (Dropouts imputed)

|                | N  |        |        |        |        |        |        |        |
|----------------|----|--------|--------|--------|--------|--------|--------|--------|
| CCI-all education | 171 | -0.34 ± 0.04 | -0.22 ± 0.04 | -0.12 ± 0.04  | 2.0x10^{-15} | 2.3x10^{-7} | 0.001 | 65% |
| CCI-web         | 79  | -0.38 ± 0.06 | -0.29 ± 0.07 | -0.08 ± 0.05  | 4.9x10^{-11} | 5.1x10^{-6} | 0.11  | 78% |
| CCI-onsite      | 92  | -0.31 ± 0.06 | -0.15 ± 0.06 | -0.15 ± 0.05  | 9.0x10^{-7}  | 0.005  | 0.004 | 50% |
| Difference: web-onsite | -0.07 ± 0.09 | -0.14 ± 0.09 | 0.07 ± 0.08 |

**ΔHOMA-IR (insulin derived), all**

All starters (Dropouts imputed)

|                | N  |        |        |        |        |        |        |        |
|----------------|----|--------|--------|--------|--------|--------|--------|--------|
| CCI-all education | 160 | -5.5 ± 0.93 | -5.16 ± 0.7 | -0.34 ± 0.62  | 3.8x10^{-9} | 1.5x10^{-13} | 0.59  | 94% |
| CCI-web         | 74  | -4.09 ± 1.43 | -4.58 ± 0.84 | 0.5 ± 1.24  | 0.004    | 5.0x10^{-6} | 0.69  | 112%|
| CCI-onsite      | 86  | -6.72 ± 1.21 | -5.66 ± 1.08 | -1.06 ± 0.44 | 3.2x10^{-8} | 1.7x10^{-7} | 0.02  | 84% |
| Difference: web-onsite | 2.63 ± 1.88 | 1.07 ± 1.37 | 1.55 ± 1.31 |

**ΔHOMA-IR (insulin derived), excluding exogenous insulin users**

All starters (Dropouts imputed)

|                | N  |        |        |        |        |        |        |        |
|----------------|----|--------|--------|--------|--------|--------|--------|--------|
| CCI-all education | 123 | -13.01 ± 1.43 | -9.38 ± 1.41 | -3.63 ± 1.31  | 1.8x10^{-12} | 2.7x10^{-11} | 0.005 | 72% |
| CCI-web         | 53  | -10.56 ± 1.50 | -10.21 ± 2.16 | -0.35 ± 1.32  | 1.8x10^{-12} | 2.0x10^{-6} | 0.79  | 97% |
| CCI-onsite      | 70  | -14.87 ± 2.23 | -8.75 ± 1.86 | -6.12 ± 2.02  | 2.7x10^{-11} | 2.7x10^{-6} | 0.002 | 59% |
| Difference: web-onsite | 4.31 ± 2.69 | -1.46 ± 2.86 | 5.77 ± 2.42* |
### ΔHOMA-IR (C-peptide derived)

|                    | All starters (Dropouts imputed) | Completers |     |     |     |     |     |     |
|--------------------|---------------------------------|------------|-----|-----|-----|-----|-----|-----|
|                    | 262                             |            | -3.45 ± 0.46 | -2.57 ± 0.37 | -0.88 ± 0.32 | 1.0x10^{-13} | 3.1x10^{-12} | 0.006 | 74% |
| Completers         |                                 |            | -3.54 ± 0.45 | -2.58 ± 0.41 | -0.97 ± 0.26 | 4.0x10^{-15} | 2.8x10^{-10} | 0.0002 | 73% |
| CCI-all education b | 150                             | 69         | -3.47 ± 0.67 | -2.74 ± 0.62 | -0.73 ± 0.4  | 2.2x10^{-7}  | 8.4x10^{-6}  | 0.07   | 79% |
| CCI-web b          |                                 |            | -3.6 ± 0.61  | -2.44 ± 0.55 | -1.17 ± 0.35 | 4.2x10^{-9}  | 8.9x10^{-6}  | 0.0007 | 68% |
| CCI-onsite b       |                                 | 81         | 0.13 ± 0.91  | -0.31 ± 0.82 | 0.44 ± 0.53  |              |              |        |     |
| Difference: web-onsite c |                  |            |              |              |              |              |              |        |     |

### ΔWeight-clinic (kg)

|                    | All starters (Dropouts imputed) | Completers |     |     |     |     |     |     |
|--------------------|---------------------------------|------------|-----|-----|-----|-----|-----|-----|
|                    | 262                             |            | -13.8 ± 0.71 | -8.58 ± 0.35 | -5.22 ± 0.55 | <10^{-16} | <10^{-16} | <10^{-16} | 62% |
| Completers         |                                 |            | -14.08 ± 0.81 | -8.92 ± 0.39 | -11.38 ± 1.3  | <10^{-16} | <10^{-16} | <10^{-16} | 63% |
| CCI-all education b | 161                             | 61         | -13.17 ± 1.2  | -9.55 ± 0.57 | -7.98 ± 2.01  | <10^{-16} | <10^{-16} | 7.1x10^{-5} | 73% |
| CCI-web b          |                                 |            | -13.17 ± 1.2  | -8.54 ± 0.52 | -13.45 ± 1.67 | <10^{-16} | <10^{-16} | 8.9x10^{-16} | 58% |
| CCI-onsite b       |                                 | 100        | 1.47 ± 1.61   | -1.01 ± 0.77 | 5.48 ± 2.61*  | <10^{-16} | <10^{-16} | <10^{-16} | 63% |
| Difference: web-onsite c |                  |            |              |              |              |              |              |        |     |

### ΔWeight-home scale (kg)

|                    | All starters (Dropouts imputed) | Completers |     |     |     |     |     |     |
|--------------------|---------------------------------|------------|-----|-----|-----|-----|-----|-----|
|                    | 262                             |            | -14.36 ± 0.71 | -8.63 ± 0.33 | -5.73 ± 0.54 | <10^{-16} | <10^{-16} | <10^{-16} | 60% |
| Completers         |                                 |            | -15.61 ± 0.73 | -8.06 ± 0.29 | -7.54 ± 0.56  | <10^{-16} | <10^{-16} | <10^{-16} | 51% |
| CCI-all education b | 218                             | 104        | -15.43 ± 1.04 | -8.24 ± 0.4  | -7.19 ± 0.84  | <10^{-16} | <10^{-16} | <10^{-16} | 53% |
| CCI-web b          |                                 |            | -15.77 ± 1.03 | -7.91 ± 0.42 | -7.86 ± 0.76  | <10^{-16} | <10^{-16} | <10^{-16} | 50% |
| CCI-onsite b       |                                 | 114        | 0.34 ± 1.47   | -0.33 ± 0.58 | 0.66 ± 1.13   |              |              |        |     |
| Difference: web-onsite c |                  |            |              |              |              |              |              |        |     |

### ΔBMI-clinic (kg/m²)

|                    | All starters (Dropouts imputed) | Completers |     |     |     |     |     |     |
|--------------------|---------------------------------|------------|-----|-----|-----|-----|-----|-----|
|                    | 262                             |            | -4.74 ± 0.25 | -2.92 ± 0.12 | -1.83 ± 0.19 | <10^{-16} | <10^{-16} | <10^{-16} | 62% |
| Completers         |                                 |            | -4.93 ± 0.29 | -3.11 ± 0.14 | -1.83 ± 0.21 | <10^{-16} | <10^{-16} | <10^{-16} | 63% |
| CCI-all education b | 161                             | 61         | -4.52 ± 0.41 | -3.25 ± 0.19 | -1.27 ± 0.31 | <10^{-16} | <10^{-16} | 3.9x10^{-5} | 71% |
| CCI-web b          |                                 |            | -5.18 ± 0.39 | -3.02 ± 0.19 | -2.16 ± 0.27 | <10^{-16} | <10^{-16} | 2.2x10^{-5} | 58% |
| CCI-onsite b       |                                 | 100        | 0.66 ± 0.57  | -0.23 ± 0.27 | 0.89 ± 0.41  |              |              |        |     |
| Difference: web-onsite c |                  |            |              |              |              |              |              |        |     |

### ΔSystolic blood pressure (mmHg)

|                    | All starters (Dropouts imputed) | Completers |     |     |     |     |     |     |
|--------------------|---------------------------------|------------|-----|-----|-----|-----|-----|-----|
|                    | 262                             |            | -6.36 ± 1.12 | -5.35 ± 1.08 | -1.01 ± 1.08 | 1.3x10^{-8} | 6.7x10^{-7} | 0.35  | 84% |
| Completers         |                                 |            | -6.28 ± 1.2  | -5.52 ± 1.24 | -0.76 ± 1.09 | 1.5x10^{-7} | 7.7x10^{-6} | 0.49  | 88% |
| CCI-all education b | 164                             | 64         | -6.34 ± 1.72 | -9.66 ± 1.92 | 3.31 ± 1.77  | 0.0002      | 5.1x10^{-7} | 0.06  | 152%|
| CCI-web b          |                                 |            | -6.24 ± 1.63 | -2.88 ± 1.56 | -3.36 ± 1.33 | 0.0001      | 0.06        | 0.01  | 46%  |
| CCI-onsite b       |                                 | 100        | -0.1 ± 2.37  | -6.78 ± 2.48*| 6.67 ± 2.22† |              |              |        |     |
| Difference: web-onsite c |                  |            |              |              |              |              |              |        |     |
| **ΔDiastolic blood pressure (mmHg)** |   |   |   |   |   |   |   |   
|-------------------------------------|---|---|---|---|---|---|---|--- |
| All starters (Dropouts imputed)      | 262 | -3.51 ± 0.65 | -4.03 ± 0.62 | 0.51 ± 0.6 | 7.2x10^8 | 7.0x10^8 | 0.4 | 115% |
| Completers                          |   |   |   |   |   |   |   |   |
| CCI-all education                   | 164 | -3.27 ± 0.72 | -3.77 ± 0.71 | 0.5 ± 0.62 | 4.9x10^6 | 1.1x10^7 | 0.42 | 115% |
| CCI-web                             | 64  | -2.44 ± 1.21 | -5.5 ± 1.1 | 3.06 ± 0.87 | 0.04 | 5.2x10^7 | 0.0004 | 226% |
| CCI-onsite                          | 100 | -3.8 ± 0.88 | -2.66 ± 0.92 | -1.14 ± 0.8 | 1.6x10^5 | 0.004 | 0.16 | 70% |
| Difference: web-onsite              | 1.36 ± 1.5 | -2.84 ± 1.43* | 4.2 ± 1.19‡ |   |   |   |   |   |

| **ΔTotal cholesterol (mmol·L⁻¹)** |   |   |   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|---|---|--- |
| All starters (Dropouts imputed)    | 262 | 0.21 ± 0.07 | -0.15 ± 0.07 | 0.36 ± 0.08 | 0.006 | 0.02 | 1.8x10⁻⁵ | -74% |
| Completers                        |   |   |   |   |   |   |   |   |
| CCI-all education                  | 172 | 0.23 ± 0.07 | -0.12± 0.07 | 0.36 ± 0.08 | 0.001 | 0.08 | 2.2x10⁻⁵ | -52% |
| CCI-web                            | 79  | 0.25 ± 0.11 | -0.06 ± 0.10 | 0.31 ± 0.13 | 0.02 | 0.55 | 0.02 | -25% |
| CCI-onsite                         | 85  | 0.22 ± 0.10 | -0.17 ± 0.09 | 0.40 ± 0.11 | 0.02 | 0.07 | 0.0002 | -79% |
| Difference: web-onsite             | 0.03 ± 0.13 | 0.11 ± 0.14 | -0.08 ± 0.17 |   |   |   |   |   |

| **ΔLDL-C (mmol·L⁻¹)**              |   |   |   |   |   |   |   |   |
|------------------------------------|---|---|---|---|---|---|---|--- |
| All starters (Dropouts imputed)     | 262 | 0.26 ± 0.06 | 0.06 ± 0.06 | 0.2 ± 0.07 | 5.1x10⁻⁵ | 0.32 | 0.005 | 22% |
| Completers                         |   |   |   |   |   |   |   |   |
| CCI-all education                   | 156 | 0.28 ± 0.07 | 0.08 ± 0.06 | 0.20 ± 0.08 | 2.6x10⁻⁵ | 0.20 | 0.01 | 29% |
| CCI-web                             | 71  | 0.29 ± 0.10 | 0.14 ± 0.10 | 0.15 ± 0.13 | 0.004 | 0.13 | 0.23 | 49% |
| CCI-onsite                          | 85  | 0.27 ± 0.09 | 0.03 ± 0.08 | 0.24 ± 0.10 | 0.003 | 0.75 | 0.01 | 10% |
| Difference: web-onsite              | 0.03 ± 0.13 | 0.12 ± 0.13 | -0.09 ± 0.16 |   |   |   |   |   |

| **ΔApo B (g·L⁻¹)**                  |   |   |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|---|--- |
| All starters (Dropouts imputed)      | 262 | -0.02 ± 0.02 | -0.04 ± 0.01 | 0.02 ± 0.02 | 0.37 | 0.01 | 0.3 | 215% |
| Completers                          |   |   |   |   |   |   |   |   |
| CCI-all education                   | 172 | -0.0 ± 0.02 | -0.03 ± 0.02 | 0.03 ± 0.02 | 0.86 | 0.07 | 0.15 | 931% |
| CCI-web                             | 79  | 0.0 ± 0.02 | -0.01 ± 0.03 | 0.01 ± 0.03 | 0.92 | 0.67 | 0.66 | -484% |
| CCI-onsite                          | 93  | -0.01 ± 0.03 | -0.05 ± 0.02 | 0.04 ± 0.02 | 0.78 | 0.02 | 0.09 | 568% |
| Difference: web-onsite              | 0.01 ± 0.04 | 0.03 ± 0.03 | -0.02 ± 0.04 |   |   |   |   |   |

| **ΔHDL-C (mmol·L⁻¹)**                |   |   |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|---|--- |
| All starters (Dropouts imputed)      | 262 | 0.2 ± 0.02 | 0.0 ± 0.02 | 0.2 ± 0.02 | <10⁻¹⁶ | 0.88 | <10⁻¹⁶ | 1% |
| Completers                          |   |   |   |   |   |   |   |   |
| CCI-all education                   | 172 | 0.18 ± 0.02 | 0.00 ± 0.02 | 0.18 ± 0.02 | 4.4x10⁻¹⁶ | 0.89 | <10⁻¹⁶ | -1% |
| CCI-web                             | 79  | 0.15 ± 0.04 | -0.05 ± 0.03 | 0.20 ± 0.03 | 3.0x10⁻⁵ | 0.12 | 7.7x10⁻¹⁰ | -31% |
| CCI-onsite                          | 93  | 0.21 ± 0.03 | 0.03 ± 0.02 | 0.18 ± 0.03 | 6.9x10⁻¹⁴ | 0.16 | 1.2x10⁻⁸ | 16% |
### All starters (Dropouts imputed)

|                      | Completers  |          |          |          |          |          |          |          |          |
|----------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | CCI-all education | 172      | -0.54 ± 0.15 | -0.51 ± 0.12 | -0.03 ± 0.10 | 1.1x10^{-15} | 3.5x10^{-9} | 0.003 | 69%     |
|                      | CCI-web     | 79       | -0.33 ± 0.21 | -0.27 ± 0.14 | -0.06 ± 0.18 | 2.0x10^{-5} | 0.02 | 0.03    | 53%     |
|                      | CCI-onsite  | 93       | -0.71 ± 0.21 | -0.71 ± 0.19 | -0.01± 0.10 | 1.2x10^{-12} | 1.5x10^{-9} | 0.04 | 79%     |
| Difference: web-onsite |            |          | 0.38 ± 0.30  | 0.43 ± 0.24  | 0.05 ± 0.21  |           |        |         |         |

### All starters (Dropouts imputed)

|                      |          |          |          |          |        |          |          |          |          |
|----------------------|----------|----------|----------|----------|--------|----------|----------|----------|----------|
|                      | Completers |          |          |          |        |          |          |          |          |
|                      | CCI-all education | 172      | -0.54 ± 0.15 | -0.51 ± 0.12 | -0.03 ± 0.10 | 1.1x10^{-15} | 3.5x10^{-9} | 0.003 | 69%     |
|                      | CCI-web     | 79       | -0.33 ± 0.21 | -0.27 ± 0.14 | -0.06 ± 0.18 | 2.0x10^{-5} | 0.02 | 0.03    | 53%     |
|                      | CCI-onsite  | 93       | -0.71 ± 0.21 | -0.71 ± 0.19 | -0.01± 0.10 | 1.2x10^{-12} | 1.5x10^{-9} | 0.04 | 79%     |
| Difference: web-onsite |            |          | 0.38 ± 0.30  | 0.43 ± 0.24  | 0.05 ± 0.21  |           |        |         |         |

### ΔTotal/HDL-cholesterol

|                      | Completers  |          |          |          |          |          |          |          |          |
|----------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | CCI-all education | 172      | -0.44 ± 0.11 | -0.16 ± 0.11 | -0.28 ± 0.11 | 5.3x10^{-5} | 0.15 | 0.008   | 36%     |
|                      | CCI-web     | 79       | -0.33 ± 0.16 | 0.05 ± 0.17  | -0.38 ± 0.17 | 0.04 | 0.75    | 0.02    | -17%    |
|                      | CCI-onsite  | 93       | -0.53 ± 0.15 | -0.33 ± 0.13 | -0.19 ± 0.13 | 0.0003 | 0.01    | 0.15    | 63%     |
| Difference: web-onsite |            |          | -0.20 ± 0.22 | 0.39 ± 0.22  | -0.19 ± 0.22 |        |        |         |         |

### ΔhsC-reactive protein (nmol·L^{-1})

|                      | Completers  |          |          |          |          |          |          |          |          |
|----------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | CCI-all education | 187      | -34.48 ± 9.14 | 3.33 ± 6.19  | -37.81 ± 6.67 | 0.0002 | 0.59    | 1.1x10^{-8} | -10%    |
|                      | CCI-web     | 96       | -43.14 ± 17.14 | -2.19 ± 10.29 | -41.05 ± 10.29 | 0.01  | 0.83    | 6.6x10^{-5} | 5%      |
|                      | CCI-onsite  | 91       | -25.33 ± 5.14 | 9.14 ± 6.67  | -34.57 ± 8.29 | 9.4x10^{-7} | 0.17    | 3.1x10^{-5} | -36%    |
| Difference: web-onsite |            |          | -17.81 ± 17.91 | -11.33 ± 12.29 | -6.48 ± 13.24 |        |        |         |         |

### ΔALT (µkat·L^{-1})

|                      | Completers  |          |          |          |          |          |          |          |          |
|----------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | CCI-all education | 195      | -0.16 ± 0.03 | -0.09 ± 0.03 | -0.08 ± 0.01 | 1.4x10^{-8} | 0.0004 | 2.7x10^{-7} | 54%     |
|                      | CCI-web     | 95       | -0.18 ± 0.03 | -0.11 ± 0.03 | -0.07 ± 0.02 | 9.1x10^{-9} | 0.0002 | 0.0006  | 61%     |
|                      | CCI-onsite  | 100      | -0.15 ± 0.05 | -0.07 ± 0.04 | -0.08 ± 0.02 | 0.002 | 0.1     | 0.0001  | 45%     |
| Difference: web-onsite |            |          | -0.04 ± 0.06  | -0.05 ± 0.05  | 0.01 ± 0.03  |        |        |         |         |

### ΔAST (µkat·L^{-1})

|                      | Completers  |          |          |          |          |          |          |          |          |
|----------------------|-------------|----------|----------|----------|----------|----------|----------|----------|----------|
|                      | CCI-all education | 195      | -0.09 ± 0.02 | -0.06 ± 0.02 | -0.03 ± 0.01 | 3.8x10^{-6} | 0.002  | 0.0006  | 63%     |
|                      | CCI-web     | 95       | -0.12 ± 0.03 | -0.08 ± 0.03 | -0.04 ± 0.02 | 6.0x10^{-5} | 0.006  | 0.02    | 68%     |
|                           | CCI-onsite | Difference: web-onsite |
|---------------------------|------------|------------------------|
|                           |            |                        |
| **∆Alkaline phosphatase (µkat·L⁻¹)** |            |                        |
| All starters (Dropouts imputed) |            |                        |
| Completers                |            |                        |
| CCI-all education b        | 262        | -0.16 ± 0.02           |
|                           |            | -0.12 ± 0.01           |
|                           |            | -0.04 ± 0.01           |
|                           |            | <10⁻¹⁶                 |
|                           |            | <10⁻¹⁶                 |
|                           |            | 0.02                   |
|                           |            | 78%                    |
| CCI-web b                 | 95         | -0.14 ± 0.02           |
|                           |            | -0.13 ± 0.02           |
|                           |            | -0.02 ± 0.02           |
|                           |            | 5.4 x10⁻⁵              |
|                           |            | 9.2 x10⁻¹⁰             |
|                           |            | 0.45                   |
|                           |            | 88%                    |
| CCI-onsite b              | 99         | -0.19 ± 0.03           |
|                           |            | -0.13 ± 0.02           |
|                           |            | -0.06 ± 0.02           |
|                           |            | 1.4 x10⁻¹²             |
|                           |            | 2.9 x10⁻¹²             |
|                           |            | 0.005                  |
|                           |            | 70%                    |
| Difference: web-onsite c  |            | 0.05 ± 0.03            |
|                           |            | 0.01 ± 0.03            |
|                           |            | 0.04 ± 0.03            |
| **∆Serum creatinine (µmol·L⁻¹)** |            |                        |
| All starters (Dropouts imputed) |            |                        |
| Completers                |            |                        |
| CCI-all education b        | 196        | -0.04 ± 0.01           |
|                           |            | -0.04 ± 0.01           |
|                           |            | 0.00 ± 0.01            |
|                           |            | 7.6 x10⁻⁵              |
|                           |            | 3.8 x10⁻⁶              |
|                           |            | 0.68                   |
|                           |            | 93%                    |
| CCI-web b                 | 95         | -0.05 ± 0.01           |
|                           |            | -0.04 ± 0.01           |
|                           |            | -0.01 ± 0.01           |
|                           |            | 0.0003                 |
|                           |            | 0.0001                 |
|                           |            | 0.36                   |
|                           |            | 78%                    |
| CCI-onsite b              | 101        | -0.04 ± 0.02           |
|                           |            | -0.05 ± 0.01           |
|                           |            | 0.00 ± 0.01            |
|                           |            | 0.02                   |
|                           |            | 0.002                  |
|                           |            | 0.78                   |
|                           |            | 107%                   |
| Difference: web-onsite c  |            | 0.00 ± 0.02            |
|                           |            | 0.01 ± 0.02            |
|                           |            | -0.01 ± 0.02           |
| **∆BUN (mmol·L⁻¹)**        |            |                        |
| All starters (Dropouts imputed) |            |                        |
| Completers                |            |                        |
| CCI-all education b        | 196        | 0.77 ± 0.18            |
|                           |            | 0.11 ± 0.12            |
|                           |            | 0.66 ± 0.16            |
|                           |            | 1.9 x10⁻⁵              |
|                           |            | 0.37                   |
|                           |            | 3.7 x10⁻⁵              |
|                           |            | 15%                    |
| CCI-web b                 | 95         | 0.45 ± 0.18            |
|                           |            | 0.16 ± 0.17            |
|                           |            | 0.29 ± 0.15            |
|                           |            | 0.01                   |
|                           |            | 0.35                   |
|                           |            | 0.06                   |
|                           |            | 35%                    |
| CCI-onsite b              | 101        | 1.07 ± 0.3             |
|                           |            | 0.07 ± 0.19            |
|                           |            | 1.0 ± 0.27             |
|                           |            | 0.004                  |
|                           |            | 0.7                    |
|                           |            | 0.0002                 |
|                           |            | 7%                     |
| Difference: web-onsite c  |            | -0.63 ± 0.35           |
|                           |            | 0.09 ± 0.25            |
|                           |            | -0.71 ± 0.31           |
| **∆GFR (mL·s⁻¹·m⁻²)**     |            |                        |
| All starters (Dropouts imputed) |            |                        |
| Completers                |            |                        |
| CCI-all education b        | 196        | 0.04 ± 0.01            |
|                           |            | 0.03 ± 0.01            |
|                           |            | 0.0 ± 0.01             |
|                           |            | 0.005                  |
|                           |            | 0.002                  |
|                           |            | 0.55                   |
|                           |            | 84%                    |
| CCI-web b                 | 95         | 0.04 ± 0.01            |
|                           |            | 0.04 ± 0.01            |
|                           |            | 0.01 ± 0.01            |
|                           |            | 0.003                  |
|                           |            | 0.001                  |
|                           |            | 0.52                   |
|                           |            | 80%                    |
| CCI-onsite b              | 101        | 0.04 ± 0.02            |
|                           |            | 0.03 ± 0.01            |
|                           |            | 0.01 ± 0.01            |
|                           |            | 0.04                   |
|                           |            | 0.04                   |
|                           |            | 0.5                    |
|                           |            | 80%                    |
| Difference: web-onsite c  |            | 0.01 ± 0.02            |
|                           |            | 0.01 ± 0.02            |
|                           |            | 0.0 ± 0.02             |
| **∆Anion gap (mmol·L⁻¹)**  |            |                        |
| All starters (Dropouts imputed) |            |                        |
| Completers                |            |                        |
| CCI-all education b        | 195        | 0.29 ± 0.14            |
|                           |            | 0.31 ± 0.14            |
|                           |            | -0.02 ± 0.16           |
|                           |            | 0.04                   |
|                           |            | 0.03                   |
|                           |            | 0.92                   |
|                           |            | 105%                   |
|                  |CCI-web<sup>b</sup> | CCI-onsite<sup>b</sup> | Difference: web-onsite<sup>c</sup> |
|------------------|---------------------|-------------------------|--------------------------------------|
|                  | 95                  | 100                     |                                      |
|                  | 0.07 ± 0.2          | 0.5 ± 0.2               | -0.43 ± 0.29                        |
|                  | 0.01 ± 0.2          | 0.59 ± 0.19             | -0.58 ± 0.27*                       |
|                  | 0.06 ± 0.22         | -0.09 ± 0.22            | 0.15 ± 0.31                         |
|                  | 0.72                | 0.01                    |                                      |
|                  | 0.96                | 0.002                   |                                      |
|                  | 0.78                | 0.69                    |                                      |
|                  | 14%                 | 118%                    |                                      |

**ΔCO<sub>2</sub> (mmol·L<sup>-1</sup>)**

|                  |All starters (Dropouts imputed)<sup>a</sup> |Completers |
|------------------|---------------------------------------------|------------|
|                  | 262                                         |            |
|                  | 0.18 ± 0.16                                 |            |
|                  | -0.2 ± 0.16                                 |            |
|                  | 0.38 ± 0.16                                 |            |
|                  | 0.67                                        | 6.6x10<sup>-13</sup> |
|                  | 4.0x10<sup>-10</sup>                        | 1487%      |

**ΔUric acid (µmol·L<sup>-1</sup>)**

|                  |All starters (Dropouts imputed)<sup>a</sup> |Completers |
|------------------|---------------------------------------------|------------|
|                  | 262                                         |            |
|                  | 1.78 ± 4.76                                 |            |
|                  | 30.93 ± 4.16                                |            |
|                  | -28.55 ± 4.76                               |            |
|                  | 0.67                                        | 6.6x10<sup>-13</sup> |
|                  | 4.0x10<sup>-10</sup>                        | 1487%      |

**ΔTSH (miU·L<sup>-1</sup>)**

|                  |All starters (Dropouts imputed)<sup>a</sup> |Completers |
|------------------|---------------------------------------------|------------|
|                  | 262                                         |            |
|                  | -0.42 ± 0.1                                 |            |
|                  | -0.27 ± 0.1                                 |            |
|                  | -0.15 ± 0.08                                |            |
|                  | 6.0x10<sup>-5</sup>                         | 0.008      |
|                  | 0.06                                        | 64%        |

**ΔFree T4 (pmol·L<sup>-1</sup>)**

|                  |All starters (Dropouts imputed)<sup>a</sup> |Completers |
|------------------|---------------------------------------------|------------|
|                  | 262                                         |            |
|                  | 0.13 ± 0.13                                 |            |
|                  | 0.77 ± 0.13                                 |            |
|                  | -0.64 ± 0.13                                |            |
|                  | 0.59                                        | 2.1x10<sup>-5</sup> |
|                  | 0.0006                                      | 798.90%    |

**ΔAny diabetes medication, excluding metformin (%)**

|                  |All starters (Dropouts imputed)<sup>a</sup> |
|------------------|---------------------------------------------|
|                  | -27.19 ± 3.14                              |
|                  | -22.07 ± 2.67                              |
|                  | -5.12 ± 2.34                               |
|                  | <10<sup>-16</sup>                          |
|                  | <10<sup>-16</sup>                          |
|                  | 0.03                                        |
|                  | 81%                                         |
Completers
CCI-all education\(^b\) 218 -27.52 ± 3.36 -23.39 ± 2.95 -4.13 ± 2.37 2.210\(^{16}\) 2.0\times10^{-15} 0.08 85%
CCI-web\(^b\) 104 -31.73 ± 4.98 -22.12 ± 4.09 -9.62 ± 3.99 1.8\times10^{-10} 6.4\times10^{-8} 0.02 70%
CCI-onsite\(^b\) 114 -23.68 ± 4.54 -24.56 ± 4.24 0.88 ± 2.64 1.9\times10^{-7} 6.7\times10^{-9} 0.74 104%
Difference: web-onsite\(^c\) -8.05 ± 6.74 2.45 ± 5.89 -10.49 ± 4.78*

\(\Delta\)Sulfonylurea (%)
All starters (Dropouts imputed)\(^a\) -23.67 ± 2.7 -20.52 ± 2.52 3.15±2.60 <10\(^{-16}\) 4.4\times10^{-16} 0.23 86.70%
Completers
CCI-all education\(^b\) 218 -9.63 ± 2.0 -9.63 ± 2.0 0.0 ± 0.0 1.5\times10^{-6} 1.5\times10^{-6} 100%
CCI-web\(^b\) 104 -7.69 ± 2.63 -7.69 ± 2.63 0.0 ± 0.0 0.003 0.003 100%
CCI-onsite\(^b\) 114 -11.4 ± 2.99 -11.4 ± 2.99 0.0 ± 0.0 0.0001 0.0001 100%
Difference: web-onsite\(^c\) 3.71 ± 3.98 3.71 ± 3.98 0.0 ± 0.0

\(\Delta\)Insulin (%)
All starters (Dropouts imputed)\(^a\) -13.03 ± 2.23 -10.31 ± 1.92 -2.72 ± 1.38 5.0\times10^{-9} 7.9\times10^{-8} 0.05 79%
Completers
CCI-all education\(^b\) 218 -13.3 ± 2.4 -11.01 ± 2.12 -2.29 ± 1.37 2.8\times10^{-8} 2.2\times10^{-7} 0.09 82.80%
CCI-web\(^b\) 104 -11.54 ± 3.43 -7.69 ± 2.63 -3.85 ± 2.34 0.0008 0.003 0.1 66.70%
CCI-onsite\(^b\) 114 -14.91 ± 3.35 -14.04 ± 3.27 -0.88 ± 1.52 8.6\times10^{-8} 1.7\times10^{-5} 0.56 94.10%
Difference: web-onsite\(^c\) 3.37 ± 4.8 6.34 ± 4.19 -2.97 ± 2.79

\(\Delta\)Thiazolidinedione (%)
All starters (Dropouts imputed)\(^a\) -1.11 ± 0.9 -0.38 ± 0.4 -0.73 ± 0.83 0.22 0.34 0.38 34.20%
Completers
CCI-all education\(^b\) 218 -1.38 ± 1.02 -0.46 ± 0.46 -0.92 ± 0.92 0.18 0.32 0.32 33.30%
CCI-web\(^b\) 104 -2.88 ± 1.65 -0.96 ± 0.96 -1.92 ± 1.35 0.08 0.32 0.16 33.30%
CCI-onsite\(^b\) 114 0.00 ± 1.25 0.00 ± 0.00 0.00 ± 1.25
Difference: web-onsite\(^c\) -2.88 ± 2.07 -0.96 ± 0.96 -1.92 ± 1.84

\(\Delta\)SGLT-2 (%)
All starters (Dropouts imputed)\(^a\) -9.26 ± 1.88 -8.77 ± 1.85 -0.49±1.87 9.0\times10^{-7} 2.0\times10^{-6} 0.79 94.70%
Completers
CCI-all education\(^b\) 218 -9.63 ± 2.0 -9.63 ± 2.0 0.0 ± 0.0
CCI-web\(^b\) 104 -7.69 ± 2.63 -7.69 ± 2.63 0.0 ± 0.0 1.5\times10^{-6} 1.5\times10^{-6} 100%
CCI-onsite\(^b\) 114 -11.4 ± 2.99 -11.4 ± 2.99 0.0 ± 0.0 0.003 0.003 100%
Difference: web-onsite\(^c\) 3.71 ± 3.98 3.71 ± 3.98 0.0 ± 0.0 0.0001 0.0001 100%
### ∆DPP-4 (%)

| Group | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) | Percentage |
|-------|-----------|-----------|-----------|-----------|------------|
| All starters (Dropouts imputed) | -3.63 ± 2.22 | -4.26 ± 1.77 | 0.63 ± 1.66 | 0.10 | 0.02 | 0.70 | 118% |
| Completers | | | | | |
| CCI-all education | 218 | -3.67 ± 2.33 | -4.13 ± 1.87 | 0.46 ± 1.66 | 0.12 | 0.03 | 0.78 | 113% |
| CCI-web | 104 | -2.88 ± 3.47 | -4.13 ± 1.87 | 2.88 ± 2.54 | 0.41 | 0.01 | 0.26 | 200% |
| CCI-onsite | 114 | -4.39 ± 3.15 | -2.63 ± 2.91 | -1.75 ± 2.15 | 0.16 | 0.37 | 0.41 | 60% |
| Difference: web-onsite | | 1.5 ± 4.69 | -3.14 ± 3.71 | 4.64 ± 3.33 | | | | |

### ∆GLP-1 (%)

| Group | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) | Percentage |
|-------|-----------|-----------|-----------|-----------|------------|
| All starters (Dropouts imputed) | 1.04 ± 2.29 | -1.53 ± 1.69 | 2.57 ± 2.11 | 0.65 | 0.36 | 0.22 | -147% |
| Completers | | | | | |
| CCI-all education | 218 | 0.92 ± 2.34 | -1.38 ± 1.78 | 2.29 ± 2.1 | 0.70 | 0.44 | 0.28 | -150% |
| CCI-web | 104 | -0.96 ± 3.2 | -1.92 ± 1.92 | 0.96 ± 3.2 | 0.76 | 0.32 | 0.76 | 200% |
| CCI-onsite | 114 | 2.63 ± 3.4 | -0.88 ± 2.92 | 3.51 ± 2.77 | 0.44 | 0.76 | 0.20 | -33.30% |
| Difference: web-onsite | | -3.59 ± 4.67 | -1.05 ± 3.5 | -2.55 ± 4.23 | | | | |

### ∆Metformin (%)

| Group | Mean (SD) | Mean (SD) | Mean (SD) | Mean (SD) | Percentage |
|-------|-----------|-----------|-----------|-----------|------------|
| All starters (Dropouts imputed) | -6.19 ± 3.07 | -0.79 ± 1.7 | -5.4 ± 2.79 | 0.04 | 0.64 | 0.05 | 13% |
| Completers | | | | | |
| CCI-all education | 218 | -7.34 ± 3.15 | -1.83 ± 1.83 | -5.5 ± 2.81 | 0.02 | 0.32 | 0.05 | 25% |
| CCI-web | 104 | -7.69 ± 4.67 | -2.88 ± 2.88 | -4.81 ± 3.96 | 0.10 | 0.32 | 0.22 | 38% |
| CCI-onsite | 114 | -7.02 ± 4.27 | -0.88 ± 3.33 | -6.14 ± 4.0 | 0.10 | 0.71 | 0.12 | 13% |
| Difference: web-onsite | | -0.67 ± 6.33 | -2.01 ± 3.71 | 1.33 ± 5.62 | | | | |

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a Imputed values based on 700 iterations from multivariate normal regression.
b Mean differences ± one standard error. Sample sizes, means, and significance levels refer to intervention subjects with baseline, 70-day, and one-year measurements for completers. Significance levels for completers refer to one-sample t-test. Untransformed triglyceride and hscC-reactive protein values are presented, however, their statistical significances were based on their log-transformed values.
c Significance levels refer to two-sample t-test of the differences are designated for 0.05>P≥0.01 (*); 0.01>P≥0.001 (†); 0.001>P≥0.0001 (‡); and P<0.0001 (§).
d A significance level of P<0.0017 ensures overall simultaneous significance of P≤0.05 over the 30 variables using Bonferroni correction.