

Combined physical exercise and education: how does this impact the lives of people living with Type 2 Diabetes in the short and longer term?

We have Cardiac “rehab”, we have Pulmonary “rehab”, but where is Diabetes “rehab”?



Proportional differences to show which measured factor has been impacted the most by the programme.

Aims:

We aimed to determine the efficacy of adding exercise to an already proven evidence based and structured education programme. We were looking to improve fitness, glycaemic control and psychological outcomes in people living with type 2 diabetes.

Methods:

Ten cohorts of people living with type 2 were offered an 8 week course of combined exercise and education. Pre and post-course exercise testing, HbA1c, blood pressure, body mass index, hospital anxiety and depression (HAD) scores and HbA1c follow up at 1 year and 2 years.

Results:

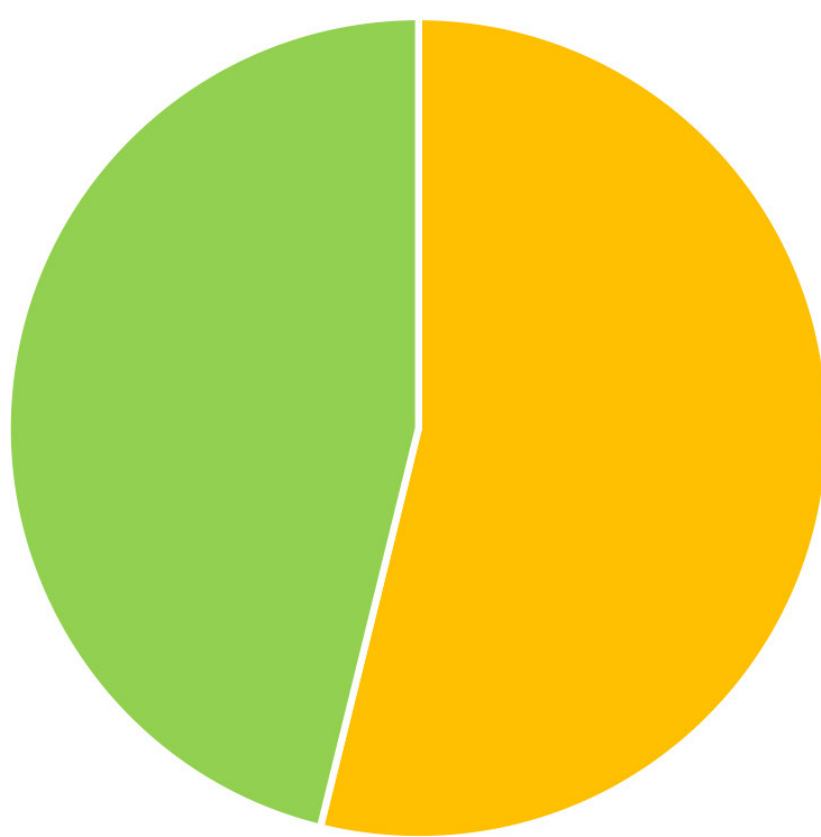
From the first eight cohorts with a total of 87 participants there was an average reduction in HbA1c of 13.8mmol/mol, waist circumference of 2.02cm, total cholesterol 0.79mmol/L, BP 5.07mmHg, BMI 0.57kg/m², and an increase of O₂ SATs 1.7%, metabolic equivalents (Mets) 0.54 O₂kg and hospital anxiety and depression score (HADS) 3.33. 1 year follow up with an average HbA1c drop of 13.5mmol/mol in the first 4 cohorts, equating to an average HbA1c of 57.8mmol/mol post course and maintaining at 58mmol/mol average at 1 year. Our 2 year data from the 1st course for HbA1c shows a continued average of 54.7mmol/mol, so maintaining the 1st cohort's initial 14mmol/mol drop.

Conclusions:

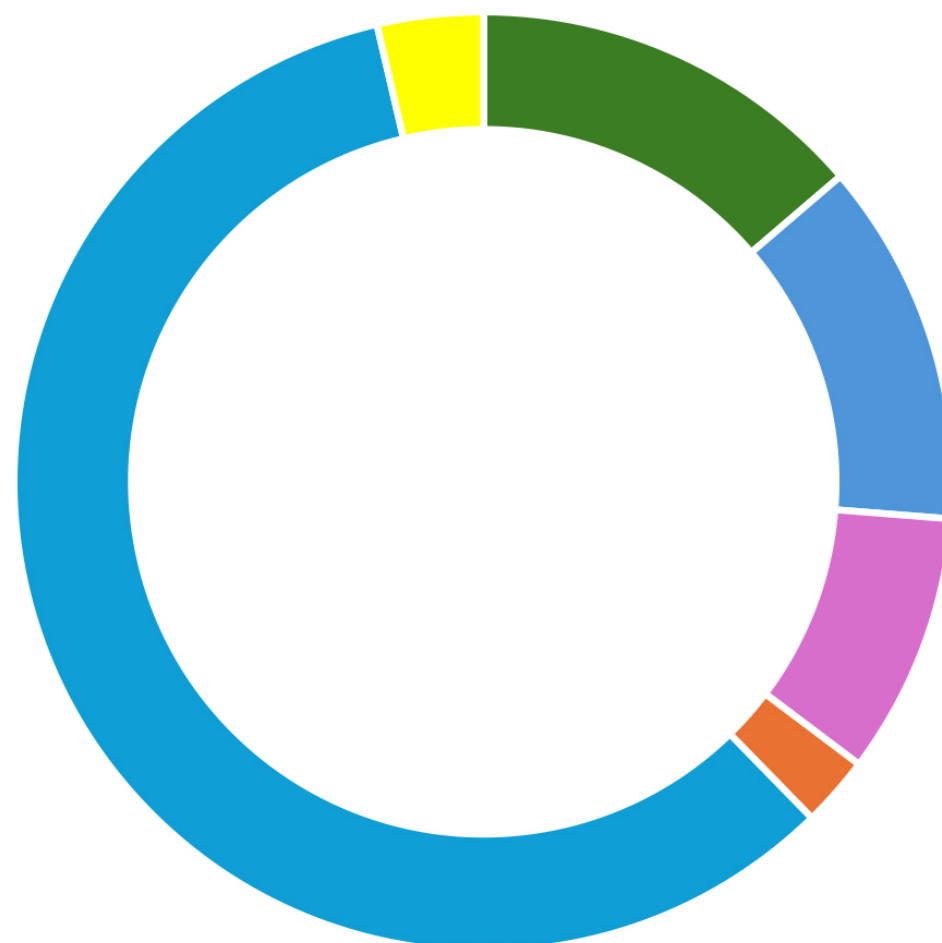
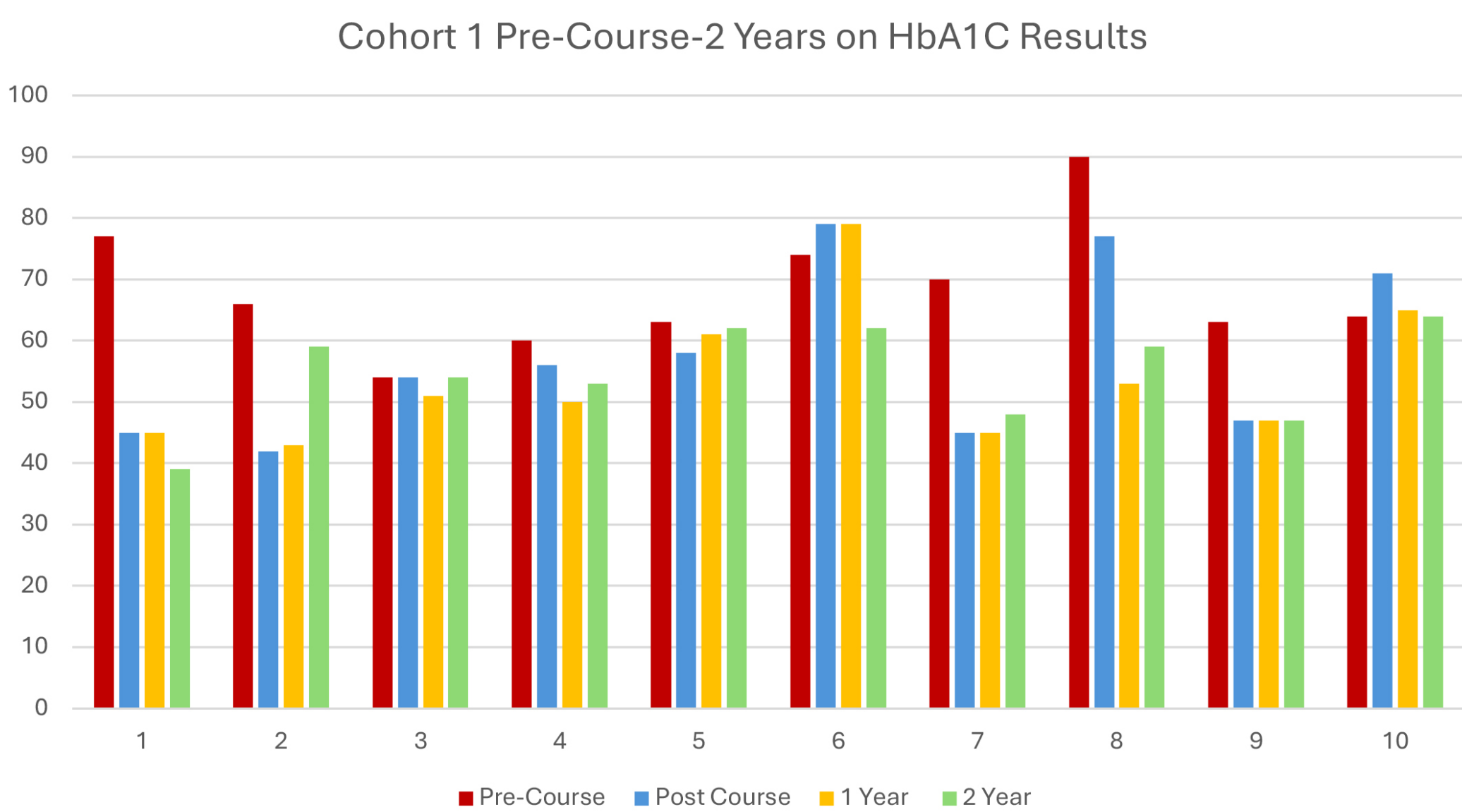
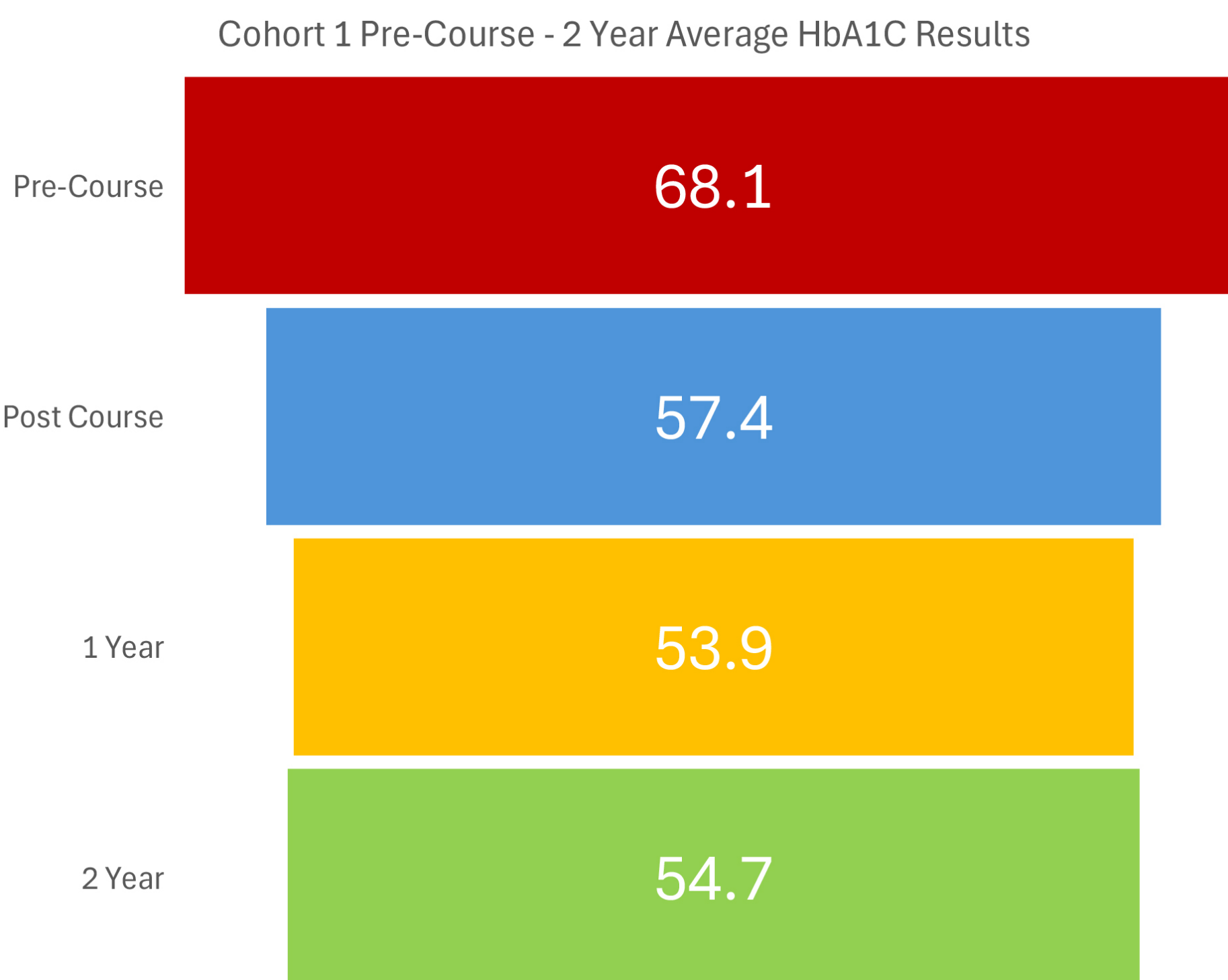
Combining exercise with education for people living with type 2 diabetes, has a profound effect immediately after the 8 week course, and one that continues to improve over the 1st year and is maintained over the 2nd year. Giving people the tools to continue changes through food choices, a full understanding of their diabetes and through exercise, was shown to be effective in the short term, even more effective at 1 year, and is maintained at 2 years. Refocusise has now been running as a trial for over two years.

Refocusise Cohort 1-8 Statistics Breakdown

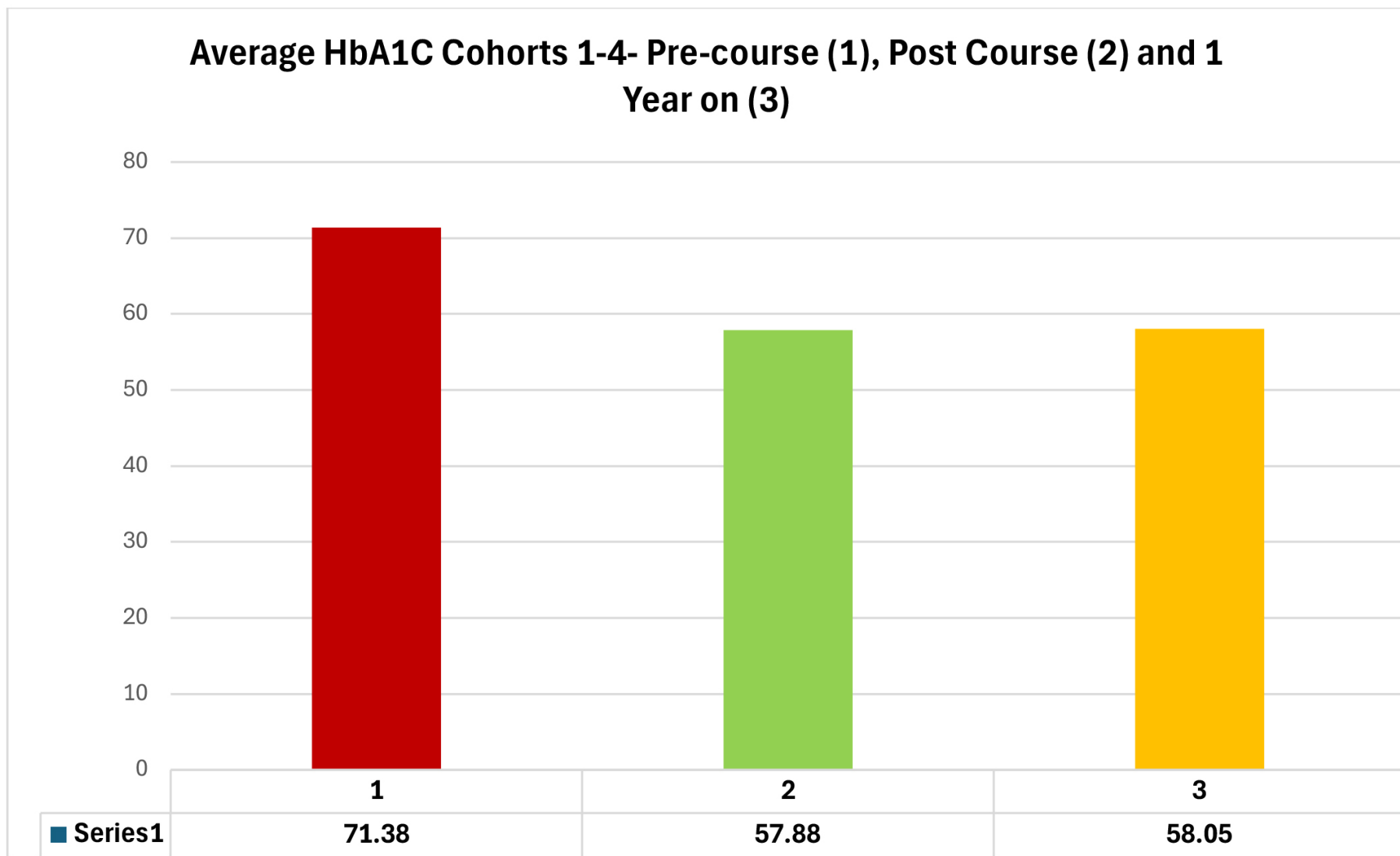
Participant Completion Rate = 85.71%



133 Participants Started 114 Participants Completed



Measured Factor	Average Difference
Resting HR	-3.23
Systolic BP	-2.95
Diastolic BP	-2.12
BMI	-0.57
HbA1C	-13.8
Cholesterol	-0.79



Average HbA1C Cohort 1-4 After Refocusise	71.38
Average Difference between Pre-Course vs -Post Course (Cohort 1-4)	57.88
Average HbA1C Cohort 1-4	-13.5
1 Year on	58.05
Average Difference Pre-Course vs 1Year on (Cohort 1-4)	-13.33
Average Difference from Post-Course vs 1 Year on	+0.17

Patient feedback

“Professionally presented” “Non-Judgemental”
“highly motivating” “Encouraging” “Impressive knowledge”
“Friendly good humour” “Changed the way I think about diabetes”
“A great kick start back into exercise” “Great signposting to other services”
“A safe space to talk” “I finally understand food and its impact”
“Changed my life” “I have more energy” “Sleeping better”
“My knees have improved” “I can move my shoulder again”
“very interesting” “I shall miss our Mondays”
“So pleased I can eat bananas again” “My relationship to food is changing”
“Everyone says I’m happier” “I can play with the grandchildren more easily”

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