



# LOWCARBPROGRAM

Scalable, engaging and effective education and behaviour change for type 2 diabetes & prediabetes remission

[LowCarbProgram.com/NHS](https://LowCarbProgram.com/NHS)

a  solution supported by



Royal College of  
General Practitioners



# TYPE 2 DIABETES IS A GROWING BURDEN

Patients are not engaging with current education provisions

7.4%

## POOR UPTAKE

Only 7.4% of people attend education within 12 months of diagnosis

60%

## LITTLE IMPACT

60% of people with diabetes do not meet their treatment targets

0.1%

## LACK OF OUTCOMES

Less than 0.1% of patients achieve type 2 diabetes remission



# COSTING THE NHS £21,000 A MINUTE

Obesity is the key risk factor, accounting for 80% of type 2 diagnosis in individuals<sup>4</sup>

£435

## COST IN MEDICATIONS

On average, patients with type 2 diabetes cost £435 in diabetes medications<sup>1</sup>

570k

## EXTRA BED STAYS

There are an extra 570,000 NHS bed days for people with diabetes<sup>2</sup>

80%

## HEALTHCARE BURDEN

Around 80% of the £8.8bn direct cost of type 2 diabetes is spent on complications<sup>2,3</sup>



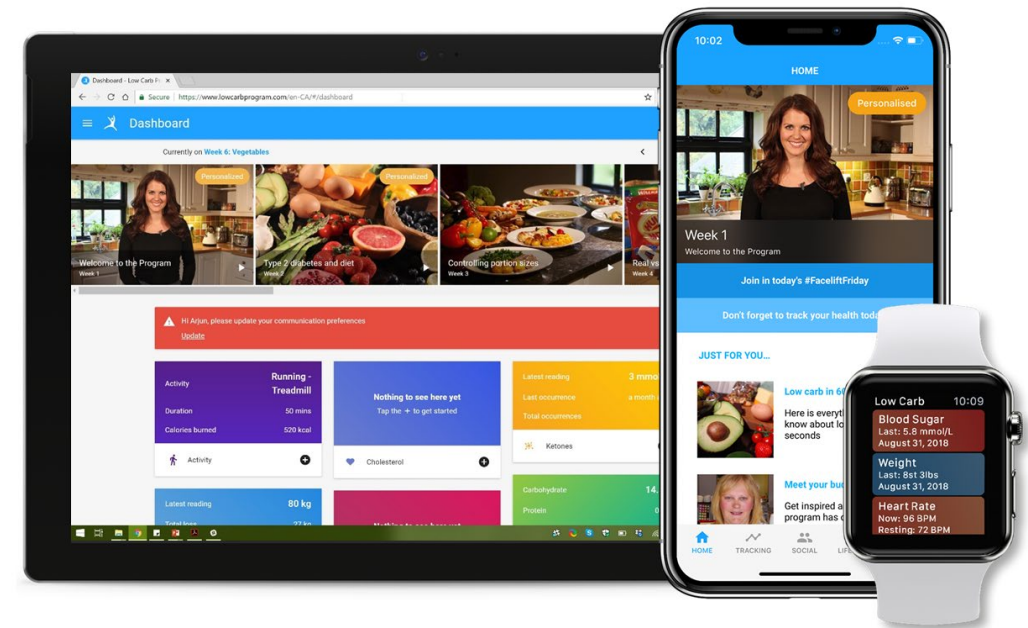
# LOW CARB PROGRAM

Available on the  
NHS App Store

**NHS**  
TheAHSNNetwork England  
NHS Innovation Accelerator

**Structured education and behaviour change platform** providing goal-focused education and long-term behaviour change support to facilitate remission

- **Program streams:** type 2 diabetes, prediabetes, non-alcoholic fatty liver disease (NAFLD), metabolic syndrome, obesity
  - Peer-reviewed, published outcomes: peerless engagement
  - NHS-endorsed; NHS Apps Library approved
- Used by 0.42M members
  - Global insurance and NHS partners
- Full HCP training, implementation and sustainability support
- **Platforms:** iOS, Android, watch, web, Alexa



## LOW CARB PROGRAM: GROUNDED IN THE EVIDENCE-BASE

**“Reducing overall carbohydrate intake for individuals with diabetes has demonstrated the most evidence for improving glycemia and may be applied in a variety of eating patterns that meet individual needs and preferences.**

For select adults with type 2 diabetes not meeting glycemic targets or where reducing antiglycemic medications is a priority, reducing overall carbohydrate intake with low- or very low-carbohydrate eating plans is a viable approach.”

- Approach is supported by American Diabetes Association, Diabetes UK, and NICE.
- Low Carb Program has been endorsed by the British Dietetics Association, QISMET and NHS Digital.



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Continuing Evolution of Nutritional Therapy for Diabetes

### Nutrition Therapy for Adults With Diabetes or Prediabetes: A Consensus Report

Alison B. Evert<sup>1</sup>, Michelle Dennison<sup>2</sup>, Christopher D. Gardner<sup>3</sup>, W. Timothy Garvey<sup>4,5</sup>, Ka Hei Karen Lau<sup>6</sup>, Janice MacLeod<sup>7</sup>, Joanna Mitri<sup>8</sup>, Raquel F. Pereira<sup>9</sup>, Kelly Rawlings<sup>10</sup>, Shamera Robinson<sup>11</sup>, Laura Saslow<sup>12</sup>, Sacha Uelmen<sup>11</sup>, Patricia B. Urbanski<sup>13</sup> and William S. Yancy Jr.<sup>14,15</sup>†

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Diabetes Care 2019 May; 42(5): 731-754.

<https://doi.org/10.2337/dci19-0014>





## STRUCTURED EDUCATION FROM THE EXPERTS

Structured education on reducing carbohydrates developed with Dr David Unwin

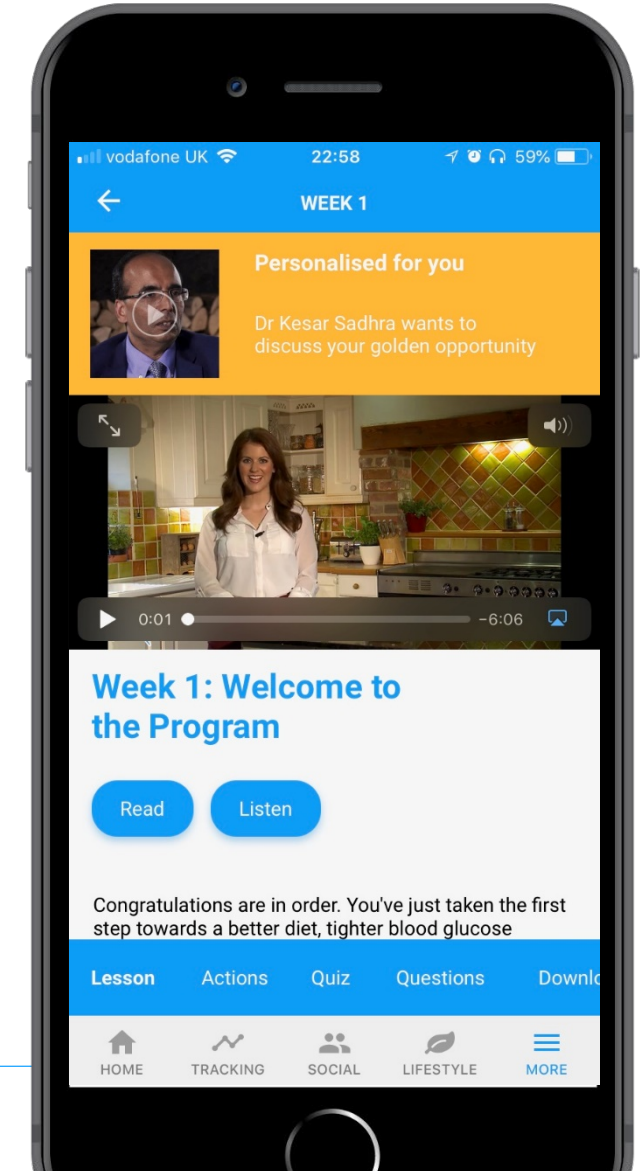
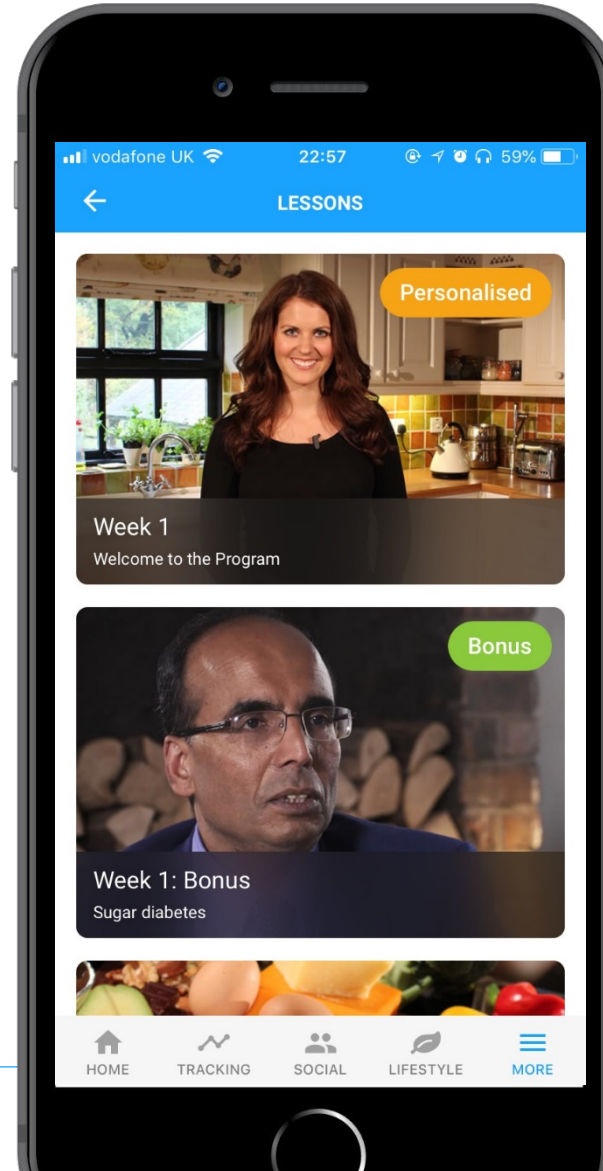
- **12 week initial implementation phase + ongoing maintenance with daily guides and monthly education modules**
- Supported with daily meal plans, food swaps and behaviour change resources tailored to user health, ethnicity, and dietary preferences
- Developed with experts including Dr David Unwin, Dr Jason Fung, Dr Kesar Sadhra and Dr Robert Lustig



## PERSONALISED EDUCATION: SOUTH ASIAN

Personalised structured education and behaviour change support to engage with the people who need it

- Covering cultural norms, dietary preferences and expectations
- Delivered in native language and English
- Only platform localised for South Asian population

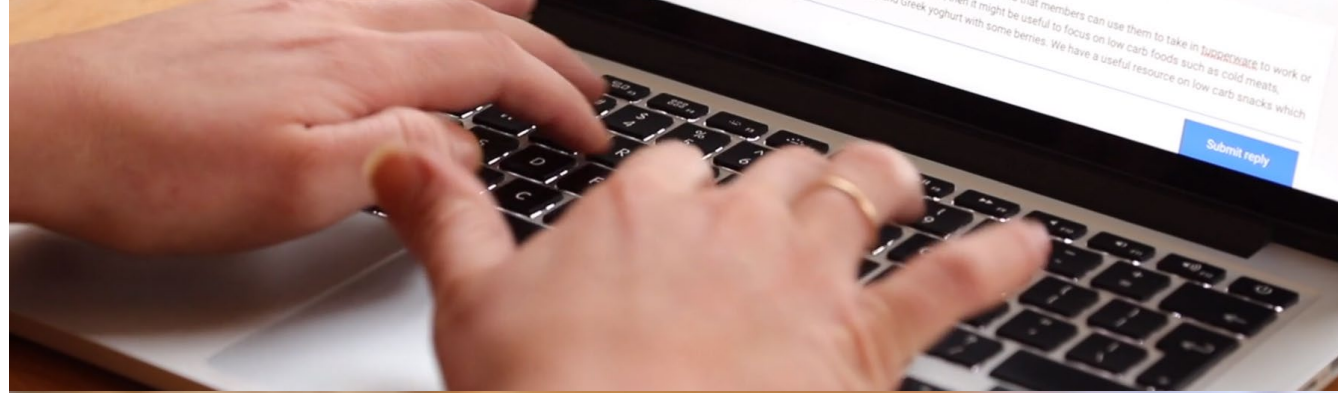




## BEHAVIOUR CHANGE SUPPORT: MENTORS

Day-to-day life can get in the way of implementing change.

- Behaviour change mentors provide support and encouragement to patients to sustain healthy habits
- Patients can also find support from peers in a moderated community of over 420,000 members



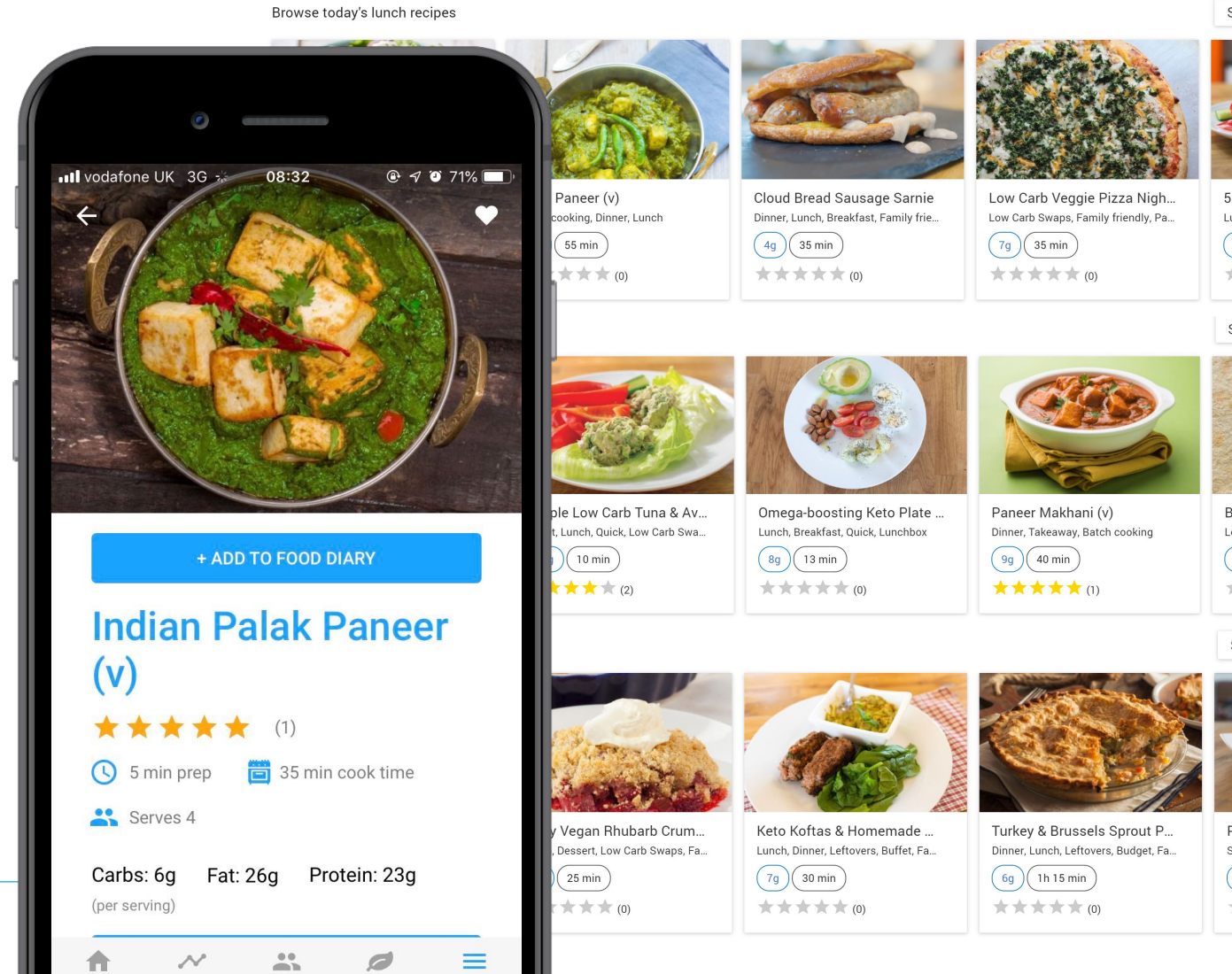
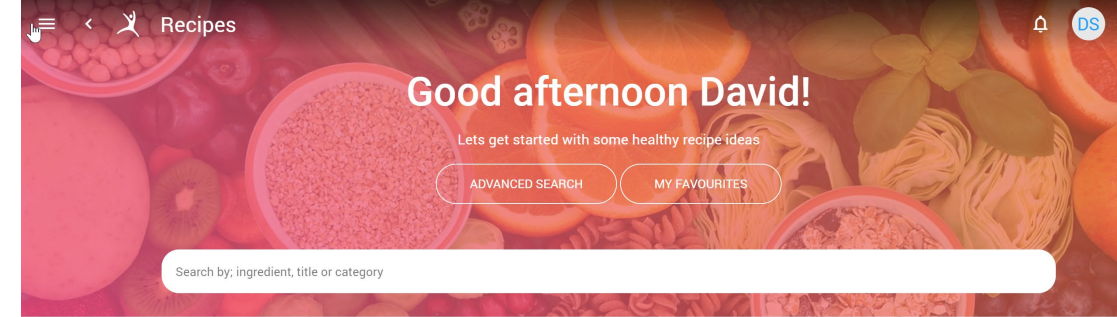


## PERSONALISED RESOURCES: OVER 1,000 RECIPES

Earlier this year, we launched a **brand new recipe system** that allows the personalisation of recipes to:

- Allergies
- Dietary preferences
- Budget
- Culture
- Time available to cook
- Ingredients
- Number of people
- Create and save personalised meal plans (up-to 7 days)

Seamlessly links in with Food Diary



# HEALTH OUTCOMES

3-year study following 1,000 people: 1 year published outcomes

For people with type 2 diabetes who complete the program:



**7.4kg**

average weight loss



**1.2%**

HbA1c reduction  
(13 mmol/mol)



**39%**

reduce their HbA1c below  
type 2 diabetes threshold



**40%**

eliminate one or  
more medications



**60%**

are able to reduce or  
eliminate insulin



**1 in 4**

place their type 2  
diabetes into remission



Saslow LR, Summers C, Aikens JE, Unwin DJ Outcomes of a Digitally Delivered Low-Carbohydrate Type 2 Diabetes Self-Management Program: 1-Year Results of a Single-Arm Longitudinal Study, JMIR Diabetes. doi:10.2196/diabetes.9333



# HOW DOES IT COMPARE TO STANDARD CARE AT 1 YEAR?

Type 2 diabetes does not have to be chronic and progressive

	Low Carb Program	Standard care
HbA1c	▼ -1.2% 13mmol/mol	▲ 0.2% 2.2mmol/mol
Body weight	▼ -7.4kg	— 0kg
Diabetes medication usage (except metformin)	▼ -54%	▲ 9%
Elimination of medication	▼ -40%	
HbA1c under type 2 threshold	▲ 39%	
Type 2 remission	▲ 26%	▲ 0.1%



# **NHS** REFERENCE SITE OUTCOMES

Our primary care pilot saw pioneering uptake and outcomes at 3 months

97%

## **STRONG UPTAKE**

Uptake that is 10-fold better than current education uptake

86%

## **STRONG ENGAGEMENT**

86% of participants complete the full program

8kg

## **AVERAGE WEIGHT LOSS**

Everyone who completed the program reported weight loss



Source: Referral data and completion data from Wincanton Health Service, Wincanton, Somerset; n = 61



LIVE WELL



# HOW DOES IT COMPARE TO OTHER DIABETES CARE PROVIDERS?

Key performance metrics: uptake, engagement, completion and health outcomes

	Low Carb Program <sup>1</sup>	Changing Health <sup>2</sup>	Oviva <sup>2</sup>	OurPath <sup>2</sup> + wearable device/scales
<b>Uptake</b>	▲ 97%	50%	72%	73%
<b>Engagement</b>	▲ 86%	49%	53%	81%
<b>Completion</b>	▲ 86%	-	53%	82%
<b>Weight</b>	▼ -8kg	-1.1kg	-4.8kg	-2.9kg
<b>HbA1c</b>	▼ -13 mmol/mol <sup>3</sup>	-6.2 mmol/mol	-5.8 mmol/mol	-9 mmol/mol



<sup>1</sup> Low Carb Program Pilot: A Quality Improvement Project aiming for Type 2 Diabetes Remission in Wincanton

<sup>2</sup> Diabetes Digital Behaviour Change Programmes: North West London Pilot Evaluation Report Dr Wayne Smith, Imperial College Health Partners 26th March 2018

<sup>3</sup> Saslow et al. Outcomes of a Digitally Delivered Low-Carbohydrate Type 2 Diabetes Self-Management Program JMIR Diabetes. doi:10.2196/diabetes.9333

# WHAT ARE THE COSTS?

Pay per patient licence or pay on results

£90

+

FREE

## £90 PER PATIENT LICENCE

3-years' access to the Low Carb Program

Purchase directly on G-Cloud 11 or  
discuss a pay-on-results model based on  
demedication with us

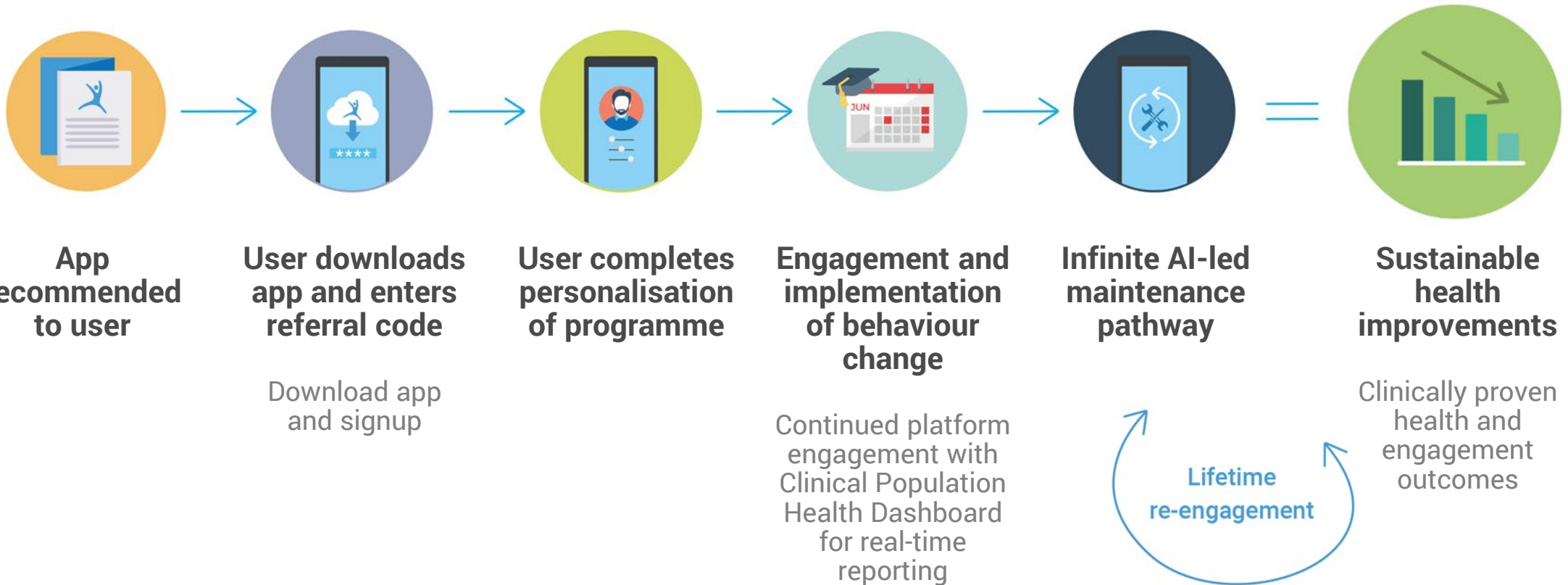
## FULL TRAINING + SUPPORT

End-to-end implementation and  
sustainability support provided by  
Ascensia Diabetes Care and Low Carb  
Program Medical Officers



# SIMPLE ENROLMENT & ONBOARDING

Refer in less than 60 seconds with a **digital** or **physical** referral code





But did you know that...  
or slow the progression with the Low

 **LOW CARB PROGRAM**  
brought to you by  **ASCENSIA**  
Diabetes Care

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START YOUR  
**OPTIMAL**

START YOUR  
**OPTIMAL**

START YOUR JOURNEY TO  
**OPTIMAL HEALTH**

 **LOW**  
bro

 **LOW CARB PROGRAM**  
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Diabetes Care

# PATIENT ENROLMENT CARD AND STARTER GUIDE

THE FACTS ABOUT  
GET

THE LOW  
EVEN



**Digital behaviour change platform for people with type 2 diabetes providing goal-focused education, personalised resources and support to implement a lower carbohydrate lifestyle.**

**Summary**

The Low Carb Program is available on iOS, Android and web. The platform comprises:

- Education: members participate in a core 12-week structured therapeutic nutrition and wellness program, personalised to disease type and profile
- Community peer support with over 390,000 members
- Behaviour change mentoring, goal identification and setting
- Library of personalised resources, including culturally-specific meal plans, food swaps and recipe ideas
- Data insights and AI-led feedback to support sustainable behaviour change

**Challenge**

Type 2 diabetes is prevalent, costly and a potentially progressive disease with serious health consequences, including blindness, amputation, stroke, dementia and premature death. In community settings, type 2 diabetes is rarely reversed, and typically patients only spend three hours per year with their healthcare professional.



**FELLOW**  
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- 🌐 www.lowcarbprogram.com/nhs
- 🐦 @LowCarbProgram

Researchers agree that type 2 diabetes may be effectively treated with a carbohydrate-reduced diet, which could improve management and potentially lead to remission. Digital interventions can support retention of continued education, which is the fundamental challenge to ensure sustainable behaviour change in patients with type 2 diabetes and prediabetes in a low-cost, scalable manner.

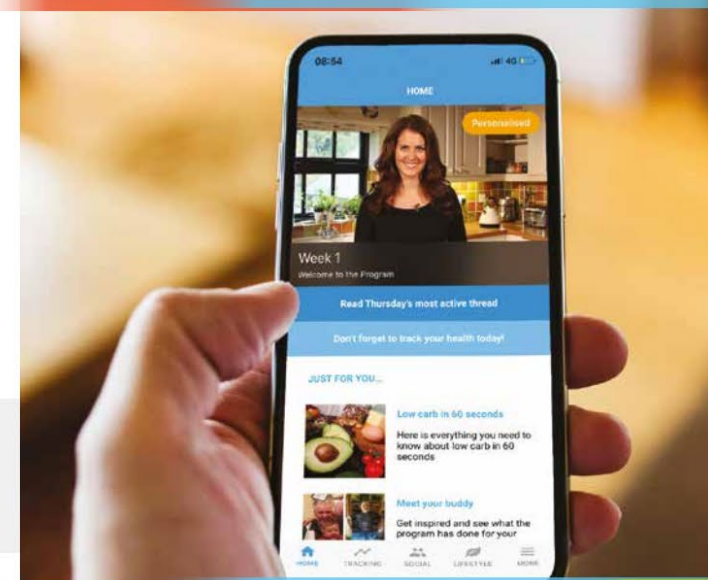
**Impact\***

- 71% platform retention at one-year
  - 40% of people on medication eliminate at least one treatment from their regime
  - 60% of people on insulin eliminate or reduce it from their regime
- For people with type 2 diabetes who complete the programme, outcomes include:
- 7.4kg weight loss
  - 13mmol/mol HbA1c reduction
  - 39% place HbA1c under type 2 diabetes threshold, with 26% placing type 2 diabetes in remission

\*One-year outcomes published as part of a three-year study on a randomly selected cohort of 1,000 people who joined the Low Carb Program: <https://diabetes.jmir.org/2018/3/e12/>

***“My HbA1c has gone down from 53 (7.0%) to 37 mmol/mol (5.5%) and I’ve lost about 19kg in total. I am in type 2 remission and have never been fitter. If it wasn’t for the Low Carb Program and the support I received, I wouldn’t be where I am today.”***

*Peter Palmer, Patient*



**Key words:** • App • Education • Remission • Type 2 Diabetes

<https://nhsaccelerator.com/innovation/low-carb-program/>

## SELECTED BY NHS INNOVATION ACCELERATOR

The **NHS Innovation Accelerator** works to **scale high impact, evidence-based innovations across the NHS** and wider healthcare system to **adopt initiatives to support the NHS Long Term Plan**



## SELECTED BY RCGP MENTORSHIP PROGRAMME

The **RCGP Innovation Programme** works to **provide support to entrepreneurial GPs with an innovation that addresses an unmet need in primary care**



## INTERNATIONAL AWARDS AND RECOGNITION





# LOWCARBPROGRAM

SCALING TYPE 2 DIABETES REMISSION

Questions?

w: [LowCarbProgram.com/NHS](https://LowCarbProgram.com/NHS)

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