



# ★ My Diabetes My Way White Paper

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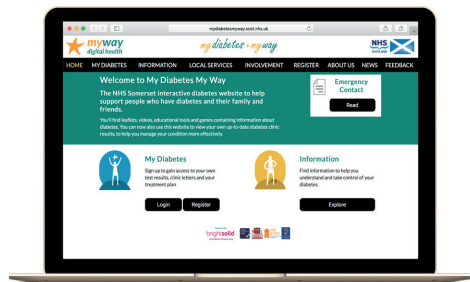
## ★ Product Description

The first and only national online diabetes patient platform in the world. ★

## MyDiabetes ★ MyWay

My Diabetes My Way is an award-winning online self-management platform for people with diabetes that aims to improve their quality of life and reduce the overall cost of care. It gives people secure access to their own medical records and home recorded data together with tailored information, advice and multimedia education resource access.

The My Diabetes My Way portal encompasses:



Local diabetes information (NHS services/ community resources)



Around 200 digital educational resources (text, video and other interactive content)



Secure electronic health record access (NHS data)



Patient self-management decision support with data-driven tailored advice/web links



Personalised care planning documents



Personalised care quality reporting using Diabetes UK Care Measures



Communication via secure messaging with health care teams and peer discussion groups



Patient goal-setting tools



Remote glucose monitoring data links via integration with Diasend/ GlookoTM



Accompanying Mobile App

## Awards & Partners

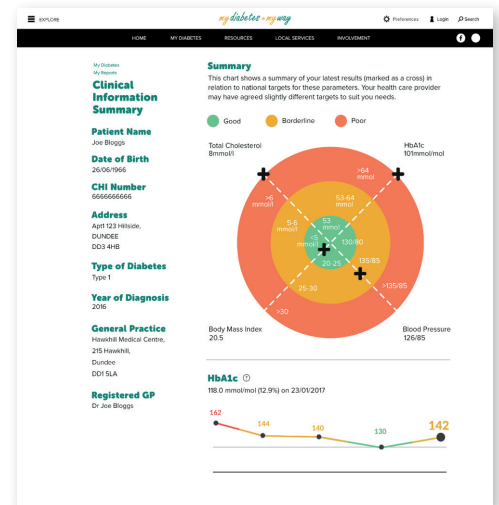
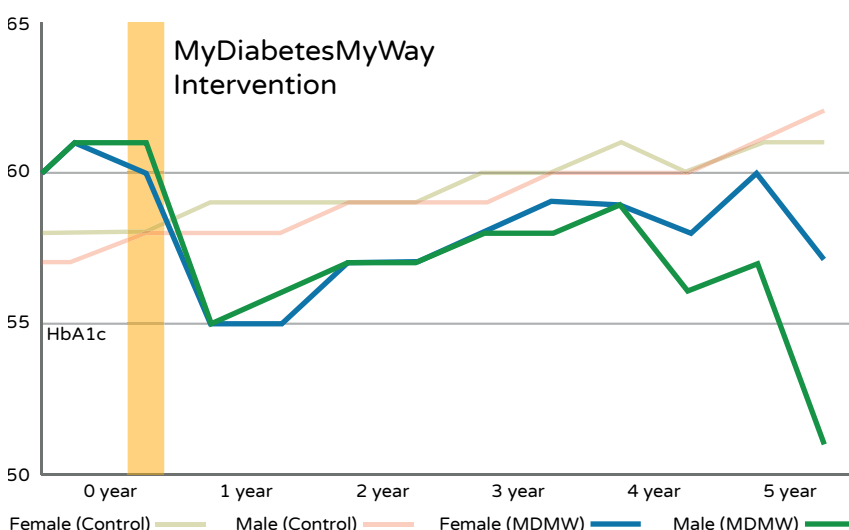
My Diabetes My Way and MyWay Digital Health have won many national and international awards including the European eHealth Adoption Award, the Diabetes UK Self-Management Award and the National Diabetes Quality in Care Award.



## ★ Evaluation- Clinical Outcomes

Observational (pre: post) analysis demonstrates changes in key clinical outcomes such as blood pressure, HbA1c, weight and lipids. Clinical outcomes were further assessed (April 2017) using time-series analysis comparing the HbA1c recordings of the intervention cohort (active users) with those in the inactive background patient population (control

cohort) matched by age, duration of diabetes, socioeconomic status and gender. Analysis was done in 3 groups: i) type 1 diabetes, ii) type 2 diabetes on insulin, ii) type 2 diabetes not on insulin. A dataset containing 7147 interventions (registrants and active users) and 36020 matched subjects was created for each data type.



Example screen of a patients results and record

## Results

Change in HbA1c (long term blood sugar control) over time from -3years to +3 years after My Diabetes My Way (MDMW) registration was analysed. All groups demonstrate significant improvements in HbA1c with MDMW use. This graph shows results from the largest group (type 2 diabetes not treated with insulin), where HbA1c reduced from 59 to 54 mmol/mol (females) and 58 to 53 mmol/mol (males) within 1 year. Intervention patients remained between 4 mmol/mol (females) and 3 mmol/mol (males) below their matched counterparts at 56 mmol/mol after 3 years of follow-up, showing a sustained reduction. Linear Regression Analysis shows that both registration for, and active use of, MDMW demonstrates independent and significant predictors of 1 year and 3 year HbA1c  $p < 0.001$

## Health Economics

The total UK diabetes population is around 3.5 million. Estimated diabetes treatment costs are around £6-7000 per person per year on average with around 45-55% of costs (£3000) spent treating complications (<https://www.nice.org.uk/guidance/ng19/resources/costing-report-544624525>). Based on the UKPDS model, a 4mmol reduction in HbA1c relates to around a 15% reduction in microvascular complications, a 4.4% reduction in Myocardial Infarction (MI) and an 8.4% reduction in diabetes-related death.

Based on 10% population registration, 5% active use in a population, the potential return on investment could equate to around 6:1 at year 2.

These models will underestimate the impact of MDMW as it does not take into account other factors such as blood pressure, weight, cholesterol or assessing the impact on service delivery including consultation time, emergency service requirements, face to face education time, administration time, and time spent duplicating screening/ testing due to lack of data transparency. Ongoing analysis will continue to build the wider picture.

## User Satisfaction

Summary findings from a recent evaluation survey of 1,098 MDMW users demonstrates:

- 90% feel it helps them make better use of their consultation
- 88 % feel it helps them manage their diabetes better
- 90% feel it improves their diabetes knowledge
- 89% feel it improves their motivation
- 87% feel it reminds them of things discussed in the consultation

## Supporting Published Evidence

The following published evidence has also looked at the impact of the My Diabetes My Way Self-Management Platform.

### References:

Conway N, Allardice B, Cunningham S, Wake DJ (2018) My Diabetes My Way: User Experiences of an Electronic Personal Health Record for Diabetes Journal of Diabetes Science and Technology (in press)

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Conway N, Webster C, Smith Blair, Wake DJ, (2016) eHealth and the use of individually tailored information: a systematic review. Health Informatics Journal 2016 May 26. pii: 1460458216641479

Cunningham SG, Brillante M, Allardice B, McAlpine RR, Wilson LL, Emslie-Smith A, Wake DJ (2015) My Diabetes My Way: supporting online diabetes self-management. Diabetic Medicine; 32:3-3

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Cunningham SG, Brillante M, Allardice B, McAlpine R, Wilson L, Walker J, Emslie-Smith A, Richards H, Tucker L, Wake DJ (2014) My Diabetes My Way: Providing online support for diabetes self-care in Scotland Diabetes & Primary Care, 16(3), 123-128

Cunningham S.G., Wake D.J., Waller A., Morris A.D, Walker J.D. (2013) My Diabetes My Way: an electronic personal health record for diabetes. British Journal of Diabetes and Vascular Disease 13(3), 143-49.

Cunningham S G, Pandharkame S., Greene A.C., McAlpine R.R., Emslie-Smith A, Wake D. Walker J., Waller A, Morris A.D., Wyatt J.C. (2013) Patients' expectations of electronic record access. British Journal of Diabetes and Vascular Disease

Wake D. J., Cunningham S (2013) Digital Diabetes- Looking to The Future. British Journal of Diabetes and Vascular Disease 13(1), 13-20

Cunningham SG, Brillante M, Allardice B, Conway NT, McAlpine RR, Wake DJ (2017) My Diabetes My Way: supporting online diabetes self-management - progress and analysis from 2016 Biomedical Engineering Online: (In Press)

PhD thesis: [http://discovery.dundee.ac.uk/portal/files/3842503/Cunningham\\_phd\\_2014.pdf](http://discovery.dundee.ac.uk/portal/files/3842503/Cunningham_phd_2014.pdf) PhD thesis: [http://discovery.dundee.ac.uk/portal/files/3842503/Cunningham\\_phd\\_2014.pdf](http://discovery.dundee.ac.uk/portal/files/3842503/Cunningham_phd_2014.pdf)

## Patient Responses

### Testimonials

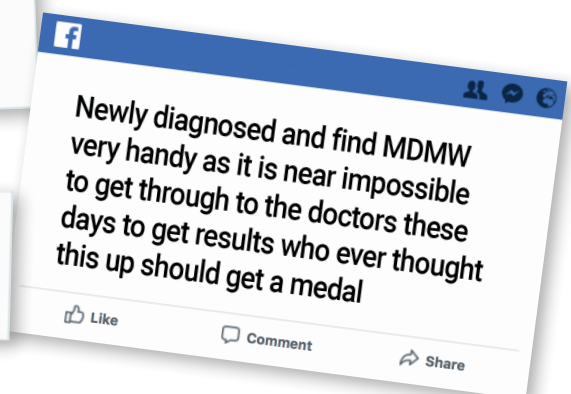
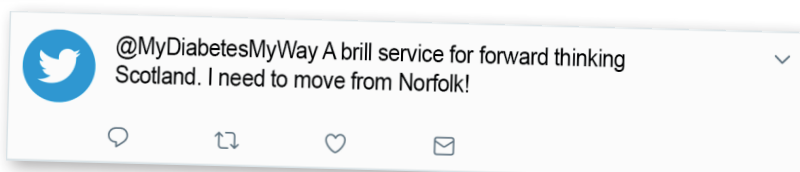
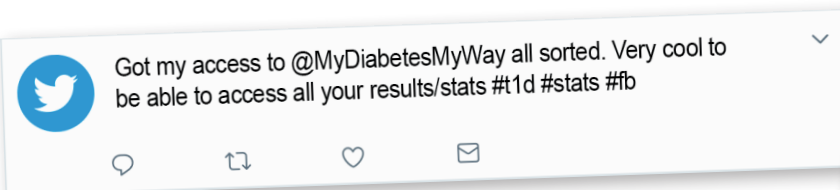
We think My Diabetes My Way is great, but don't just take our word for it, here is what our users think...

Diabetes patient, UK

"Patient access to diabetes records through My Diabetes My Way has meant a step change in the care and understanding of my condition to a level that it has never been. I am much more in control of my condition but importantly I now understand the goals that I should be achieving and am able to have a constructive discussion with my consultant. I have a note of my "numbers" that are so important to the care of diabetes such as HbA1c, blood pressure, cholesterol, weight and how this affects my BMI and of course the situation with my eyes and feet. Instead of the consultant having this information and not passing it on to me - usual response was "everything is fine" (which meant nothing!) - I am now able to discuss each of my goals and importantly reach an agreement with the consultant as to what actions I need to take to achieve those goals. I am much more aware of my condition and the different elements that are important to the care of diabetes. The different windows I can access to give me more information about different aspects of diabetes is so good it has indeed been a great education tool to help me. This patient access through MDMW is an outstanding achievement in the care, education and involvement of people with diabetes."

### Feedback

- "The knowledge provided helps me understand the normal parameters and where I stand/can improve..."
- "More information available to me means I can play a more positive role in my treatment..."
- "Great site and I like having the long term history available to put current results in perspective..."
- "It is great to be able to view all of my results so that I can be more in charge of my diabetes..."
- "This is my first time logging on, this is amazing and the information is at my fingertips now, and it's great that it can be printed out as this will help other healthcare organisations"
- "First class being able to access my records"



## Company Information

MyWay Digital Health is an exciting new University of Dundee spin out aiming to:

- Expand the success of My Diabetes My Way digital health platform beyond Scotland, where it currently has over 60,000 registrants
- Help patients manage their own condition and to develop further innovative and cost saving digital health solutions

### Background

The company has several decades of experience in clinical care and informatics spanning data integration, digital health service delivery, education and academia, enabling the development of award-winning and nationally implemented systems.

### Approach

Our aim is to develop innovative solutions enabling data linkages across sectors, supporting self-management and data transparency/ data analytics for the healthcare sector. Our products are developed with input from clinicians, technicians, data experts and patients. All our products undergo extensive user testing and evaluation to demonstrate their clinical impact.

### Goal

Our vision is to transform diabetes care globally through low-cost population-based solutions that deliver data driven knowledge and advice to patients and health care professionals thereby improving care, saving lives and reducing costs.

### Further Products

#### **MyDiabetes** **Education**

Comprehensive diabetes education site containing 200+ peer-reviewed resources and structured e-learning courses with regional customisation linking to local services.

#### **MyDiabetes** **IQ**

An Artificial Intelligence (AI) platform supporting 'data science' type analysis and modelling to support both clinician treatment and patient self-management. My Diabetes IQ works through intelligence-driven decision-support in areas ranging from drug prescribing through to complications predictions. (In development)

#### **MyDiabetes** **Clinical**

A clinician platform integrating data from across the NHS to provide a complete diabetes electronic health record (NHS and home recorded data) to support patient care with decision support/ alerting, business intelligence, performance reporting. My Diabetes Clinical links with My Diabetes My Way to support patient self-management.

#### **MyDiabetes** **Consultancy**

Advice and help on all aspects of digital health data, software, services and solutions, from local and regional to national provision.



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