

# WCPCD 10



World Congress on Prevention  
of Diabetes & its Complications

## Perspectives on Prevention Research Dr Elizabeth Robertson

**DIABETES UK**  
KNOW DIABETES. FIGHT DIABETES.

# Diabetes UK

Co-founders 1934

2018

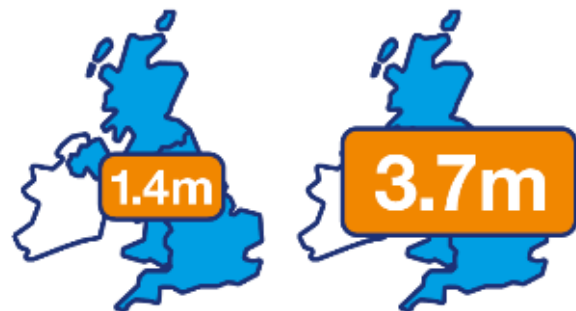


Accordingly it is proposed to form a Diabetic Association open ultimately to all diabetics, rich or poor, for mutual aid and assistance, and to promote the study, the diffusion of knowledge, and the proper treatment of diabetes in this country. If diabetics and members of the general public interested in diabetes and social organizations and doctors and nurses, particularly those specializing in diabetic work, can all be persuaded to join the projected association, it is proposed to ask for subscriptions and (a) establish a general fund with these subscriptions; (b) select a council among the first subscribers from which a working committee can be elected; and (c) initiate and coordinate the common effort by the issue of a quarterly journal; and (d) arrange for its proper distribution throughout the diabetic world.

**A WORLD  
WHERE DIABETES  
CAN DO  
NO HARM**

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# Diabetes in the UK



In 1996 there were 1.4 million people diagnosed. In 2018 there are **3.7 million.**



**One in 15** people have diabetes in the UK.

Around one million of those people have Type 2 diabetes but have not yet been diagnosed.

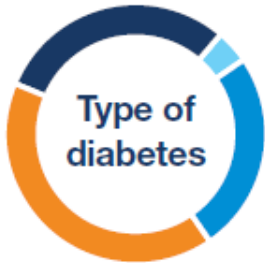


**Three out of five** cases of Type 2 diabetes can be prevented.

# Diabetes UK

## A snapshot of our funding

In the last five years alone, we've supported 168 projects:



- 25% Type 1, £6.3m
- 41% Type 2, £10.7m
- 30% Both (eg complications), £7.7m
- 4% Other (eg gestational or monogenic diabetes), £1m



In the last 10 years alone, we've invested

**£64 million**

**Last 5 years**  
**£7.4m invested in prevention research**



- 39% Clinical research, £10m



- 56% Care, £14.3m
- 15% Cure, £3.9m
- 29% Prevent, £7.4m

# Impact on people living with diabetes?

Diabetes was the leading cause of blindness in the UK amongst people of working age.

It isn't now.

## Who, where and when

**Name:** Detecting diabetic retinopathy

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**Research leader:** Professor Roy Taylor

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**Where:** Newcastle University

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**When:** 1986–2010

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**Impact:** Led to a nationwide screening programme reducing sight loss

# Impact on people living with diabetes?

Statins now widely used to prevent cardiovascular complications in diabetes

## Who, where and when

**Name:** Collaborative Atorvastatin Diabetes Study (CARDS)

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**Research leaders:** Professors Helen Colhoun and John Betteridge

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**Where:** University of Edinburgh, University College London

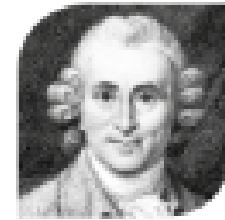
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**When:** 1999–2003

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**Impact:** Statins now used to improve health of people with Type 2 diabetes

# What matters to people living with diabetes?



James  
Lind  
Alliance

Priority Setting Partnerships

- Priority Setting Partnerships

- People living with diabetes, carers and practitioners
- Identify uncertainties about the condition
- Prioritise the ones they think are most important for research to address
- A top 10



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# TYPE 1 DIABETES TOP TEN (2012)



1. Is it possible to constantly and accurately monitor blood sugar levels, in people with type 1 diabetes, with a discrete device (non-invasive or invasive)
2. Is insulin pump therapy effective? (immediate v deferred pump, and comparing outcomes with multiple injections)
3. Is an artificial pancreas for type 1 diabetes (closed loop system) effective?
4. What are the characteristics of the best type 1 diabetes patient education programmes?
5. How can awareness of and prevention of hypoglycaemia in type 1 diabetes be improved?
6. How can awareness of and prevention of hypoglycaemia in type 1 diabetes be improved?
7. How tightly controlled do fluctuations in blood glucose levels need to be to reduce the risk of developing complications in people with type 1 diabetes?
8. Does treatment of type 1 diabetics by specialists (e.g. doctors, nurses, dieticians, podiatrists, ophthalmologists and psychologists) trained in person-centred skills provide better blood glucose control, patient satisfaction and self-confidence in management of type 1 diabetes, compared to treatment by non specialists with standard skills?
9. What makes self management successful for some people with type 1 diabetes, and not others?
10. Which insulins are safest and have the fewest (long term) adverse effects?



# The Type 2 Priority Setting Partnership

**2,500 people responded**  
**8000 questions**

**20% Healthcare  
Professionals**  
**20% Black, Asian and  
Minority Ethnic**

**TELL US WHAT YOU THINK AND  
CHANGE LIVES**

**Do you have big questions about Type 2  
diabetes that could be answered by research?  
Tell us your thoughts and help us to  
make a difference.**

T

1.

2. How do we identify people at high risk of Type 2 diabetes and help to prevent the condition from developing?

2.

How do we identify people at high risk of type 2 diabetes and help to prevent the condition from developing?

3.

6. Why does Type 2 diabetes get progressively worse over time, what is the most effective way to slow or prevent progression, and how can this be best measured?

4.

5.

6.

or prevent progression, and how can this be best measured?

7.

8. What causes nerve damage in people with Type 2 diabetes, who does it affect most, how can we increase awareness of it and how can it be best prevented and treated?

8.

9.

10.

and benefits to using particular approaches?

# Dissemination of the findings



## THE LANCET Diabetes & Endocrinology

## DIABETIC Medicine

Diabetes UK  
Professional  
Conference - 2018  
14-16 March 2018 at ExCeL London

Finer *et al*, The Lancet Diabetes and Endocrinology Volume 5, No. 12, p935–936, December 2017  
Finer *et al*, Diabetic Medicine, Volume 35, Issue 7, First published: 27 February 2018

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## Diabetes Clinical Studies Groups (CSGs)

Working together to improve the lives of people with diabetes through research.

Cause, prevention & cure

**CSG 1** Causes of diabetes

**CSG 2** Prevention, targets & therapies for Type 1 diabetes

**CSG 3** Prevention, targets & therapies for Type 2 diabetes

Self-management, acute care & long-term care

**CSG 4** Acute care

**CSG 5** Long-term self-management & glycaemic control

Prevention & management of complications

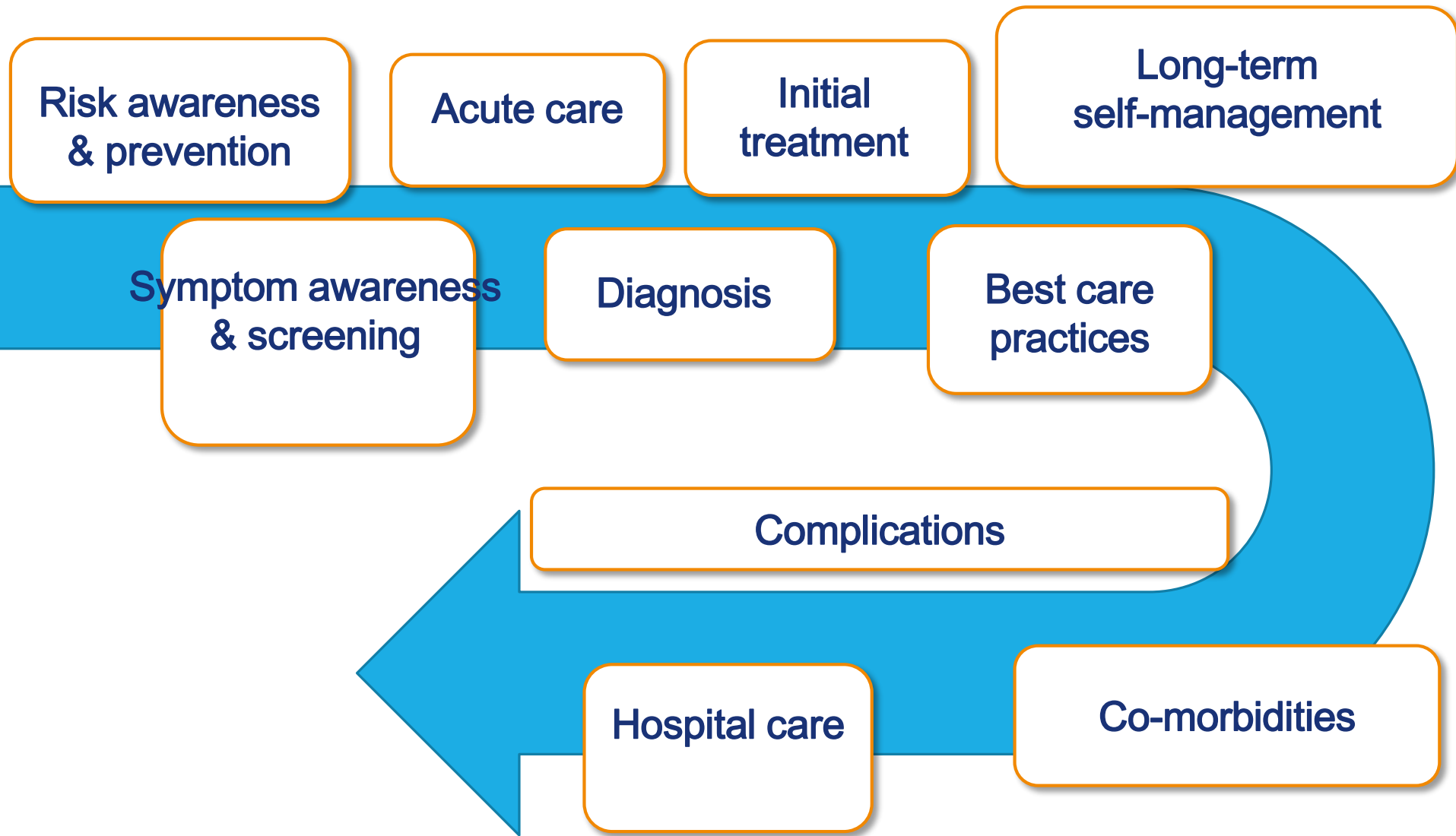
**CSG 6** Microvascular & macrovascular complications

Children's diabetes

**CSG 7** Children's diabetes sub-group (in partnership with BSPED/NIHR CRN)



# A lifetime with diabetes



# Translation of Prevention Research into Practice

## Strategy to Prevent Type 2 Diabetes

By achieving positive health outcomes for people

Through changing behaviours

Supporting individuals

Influencing society:  
Making the healthy  
choice the easy  
choice

Capability

Increasing  
awareness and  
personal 'capability'

Linking people to  
services and  
activities to  
change  
behaviour

Support  
quality,  
accessible  
services

Change  
policy

Influence  
industry

Opportunity

Research and evidence base

# Future impact?



- Bart's Oxford study is **world's longest-running** family study of Type 1
- ~3,900 families involved
- **Dr Kathleen Gillespie (Bristol)** is extending study to include details on a new generation
- Will be a **unique resource** for further research and vital for Type 1 **prevention**





# Future impact?

T1D  
Immunotherapy



T2D Lifestyle



Individual risk assessment  
Personalized prevention strategies

<https://www.type1diabetesresearch.org.uk>

Lean *et al.* 'Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomised trial', *The Lancet*, December 5, 2017

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# Acknowledgements

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Thank you

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