



Diabetes care - a patient's perspective

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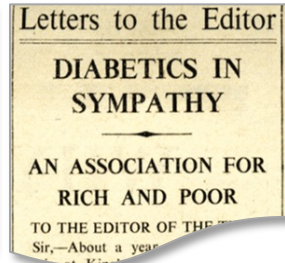
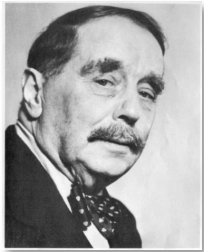
Director of Research, Diabetes UK



DIABETES UK

KNOW DIABETES. FIGHT DIABETES.

- National charity based in United Kingdom
- Established 1934



- Research funder, services, policy, advice for people living with diabetes

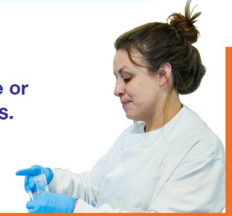
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We want people to live well and longer with diabetes.



2

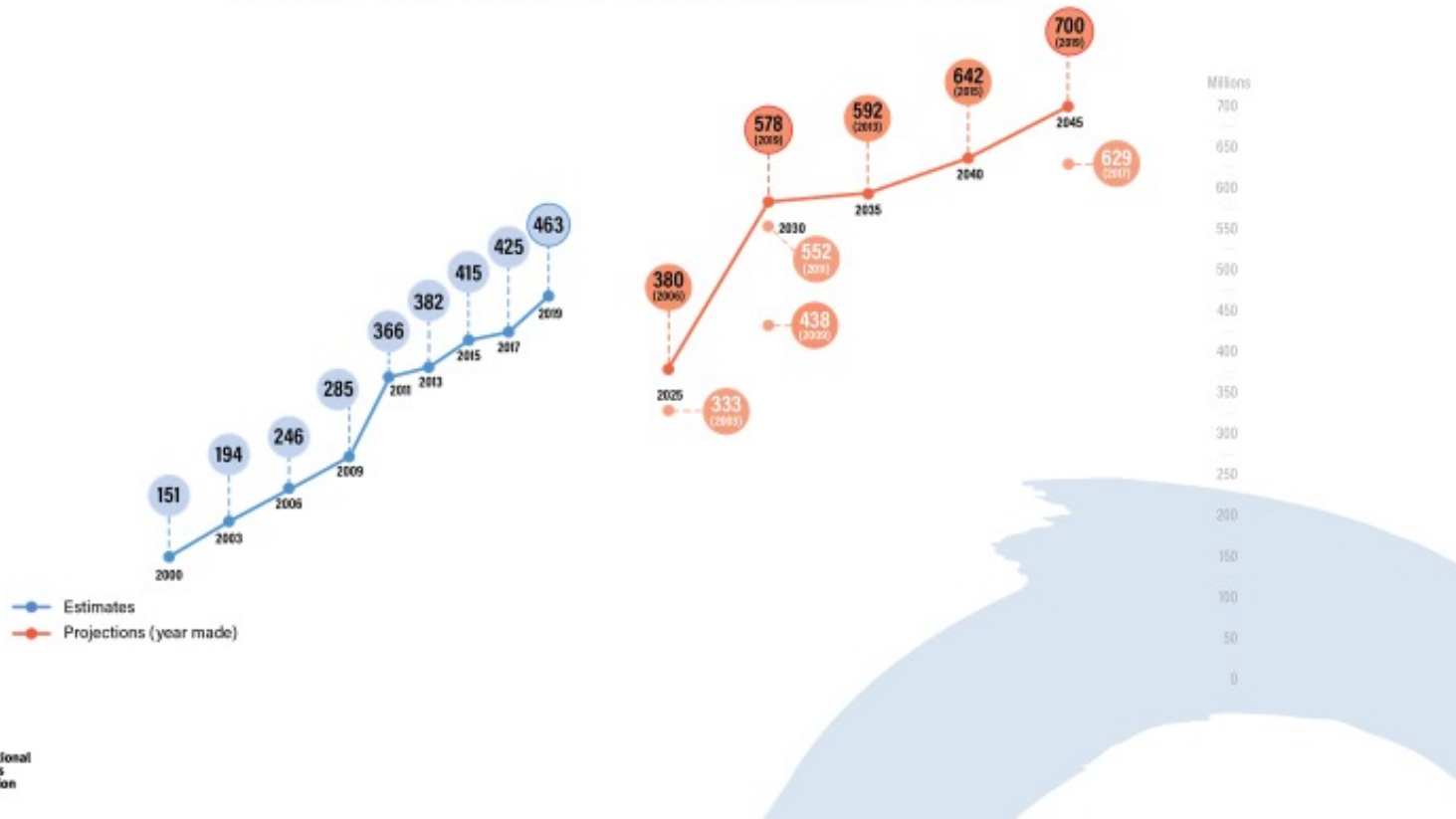
We want to cure or prevent diabetes.



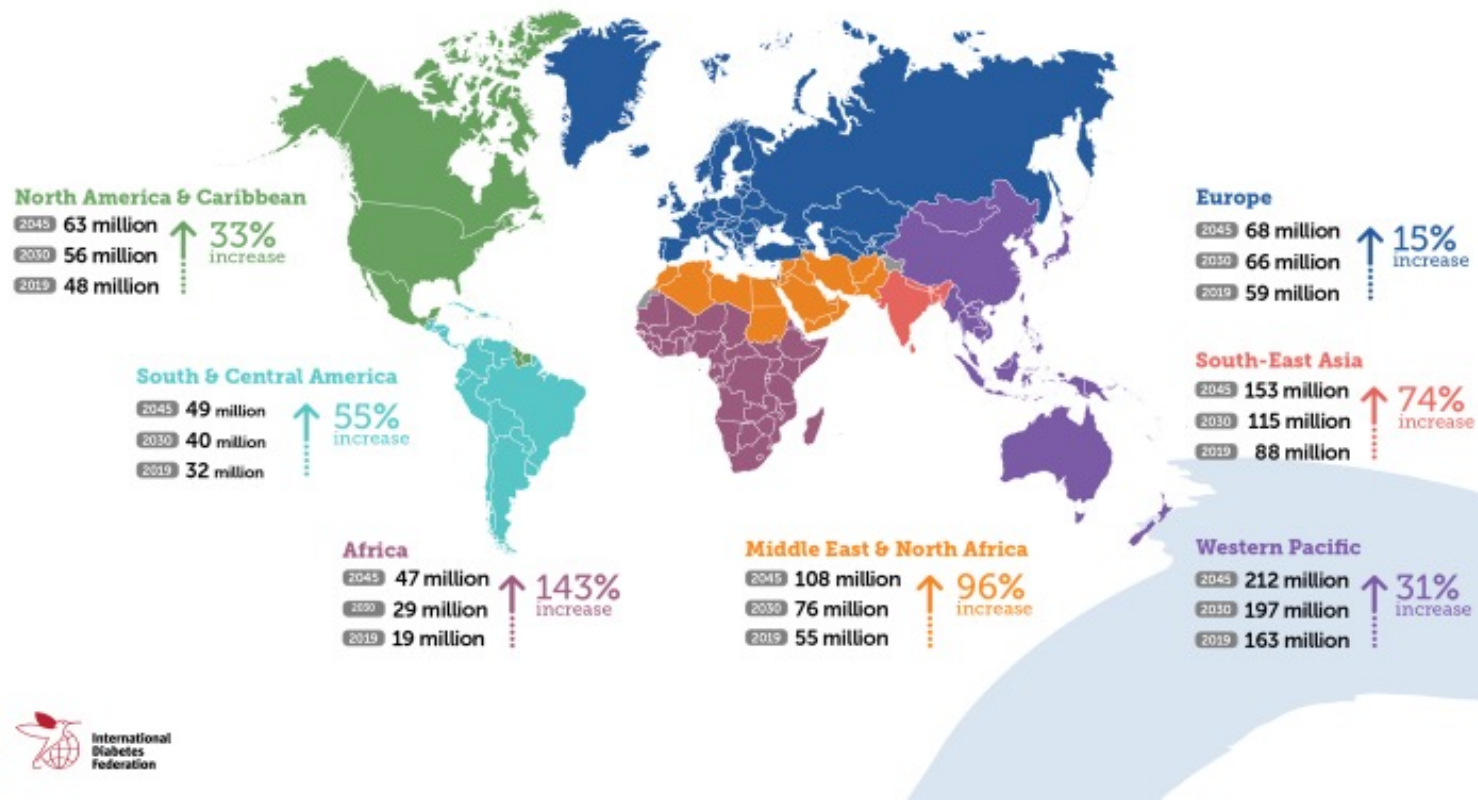
Our outcomes

1. More people with or at risk of type 1, type 2 and all other forms of diabetes will benefit from new treatments that **cure or prevent** the condition.
2. More people will be in **remission** from type 2 diabetes.
3. More people will get the **quality of care** they need to manage their diabetes well.
4. Fewer people will get **type 2 and gestational** diabetes.
5. More people will live **better and more confident** lives with diabetes, free from discrimination.

Estimates and projections of the global prevalence of diabetes in the 20–79 year age group (millions)



Number of people (20-79 years) with diabetes globally and by IDF Region



Diabetes in the UK

Every week diabetes leads to more than



169 amputations



680 strokes



530 heart attacks and almost
2,000 cases of heart failure.



More than **500** people with diabetes die prematurely every week.

Diabetes in the UK



The number of people diagnosed with diabetes has **more than doubled in 20 years.**



Someone is diagnosed with diabetes every **two minutes.**

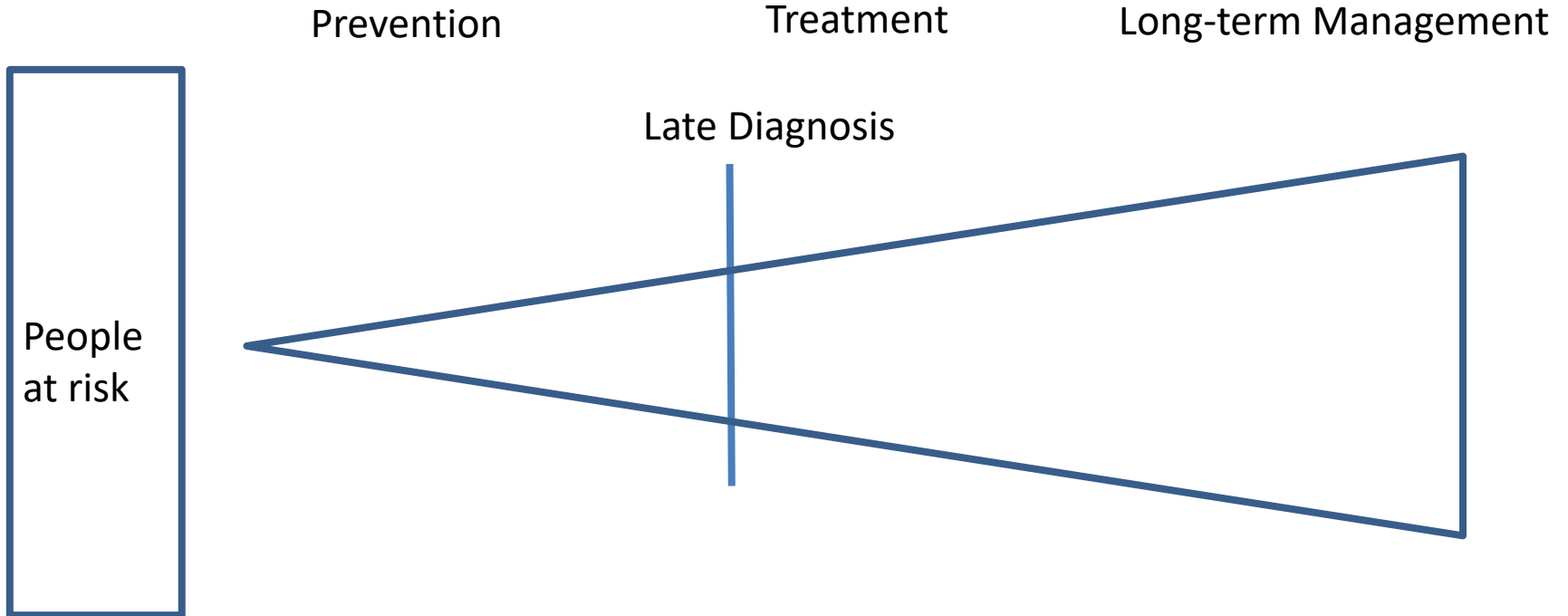


At least 10,350 people in the UK have end stage kidney failure because of their diabetes.

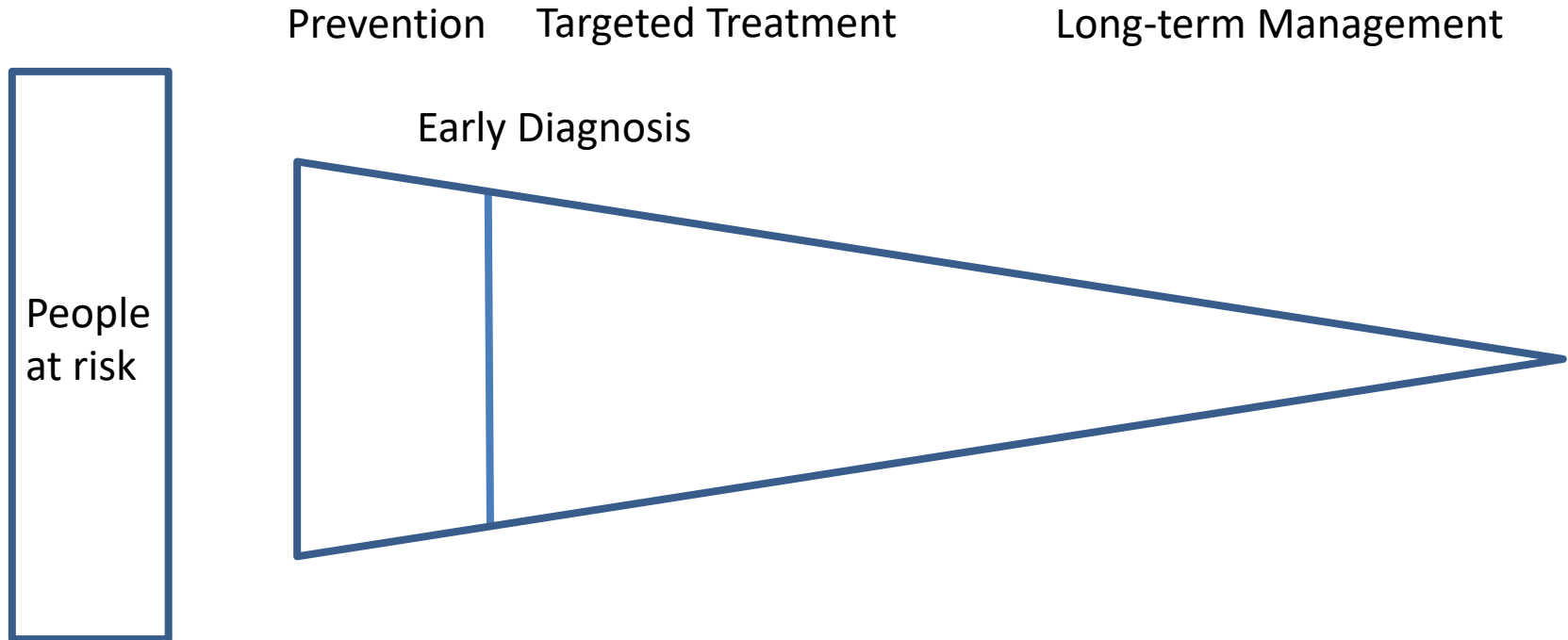


More than 1,700 people have their sight seriously affected by their diabetes every year in the UK.

Type 2 diabetes – now



Type 2 diabetes – the future?



What do people living with diabetes want?

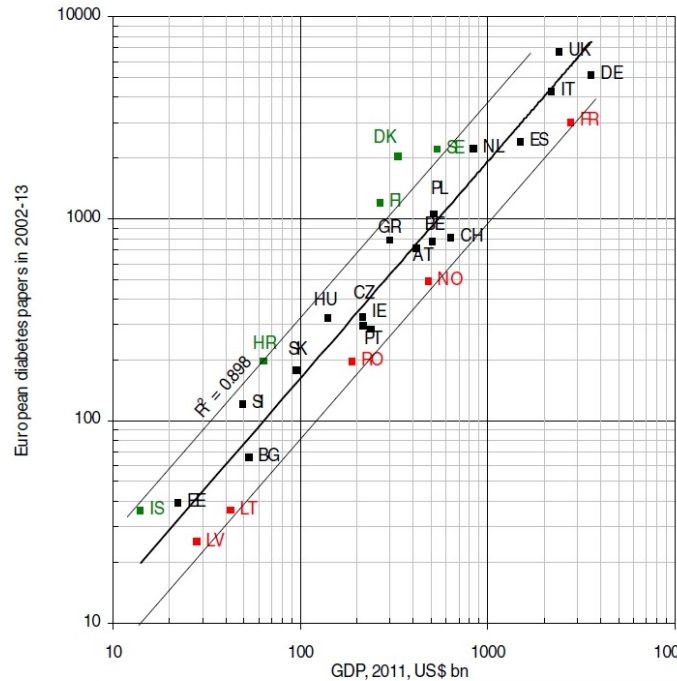
1. **Can Type 2 be cured or reversed, what is the best way to achieve this and is there a point beyond which the condition can't be reversed?**
2. How do we identify people at high risk of Type 2 diabetes and help to prevent the condition from developing?
3. What is the best way to encourage people with Type 2 diabetes, whoever they are and wherever they live, to self-manage their condition, and how should it be delivered?
4. How do stress and anxiety influence the management of Type 2 diabetes and does positive mental wellbeing have an effect?
5. How can people with Type 2 diabetes be supported to make lifestyle changes to help them manage their condition, how effective are they, and what stops them from working?
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?
7. Should diet and exercise be used as an alternative to medications for managing Type 2 diabetes, or alongside them?
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?
9. How can psychological or social support be best used to help people with, or at risk of Type 2 diabetes, and how should this be delivered to account for individual needs?
10. What role do fats, carbohydrates and proteins play in managing Type 2 diabetes, and are there risks and benefits to using particular approaches?



4000 people
living with
diabetes in the
UK

European diabetes research 2002-15

- Overall decline in European diabetes research from 45% of the world output to 33%



Begum et al Diabetic Medicine 2017

Strengths of RHAPSODY from perspective of individual living with type 2 diabetes or at risk

- Multi-disciplinary teams sharing expertise
- Tackling prevention as well as better treatments - considering **prediabetes** and **progression**
- Working at scale – combining multi-omic data and samples from existing cohorts
- Moving towards **precision medicine** – developing molecular profiling to target more effective prevention strategies or new treatments to the right individual at the right time
- Consideration of challenges of translation of new findings into clinical practice from the outset – biomarker qualification evidence, **engagement with EMA/ MHRA**



Outputs from RHAPSODY from perspective of individual living with type 2 diabetes or at risk

- **New Federated Database** for biomarker discovery – strong focus on protection of sensitive patient data
- New insights to potentially intervene to **reduce risk** of developing type 2 diabetes
- New targets to **potentially treat** type 2 diabetes



Expectations from perspective of individual living with type 2 diabetes or those at risk

- How can the Federated Database be kept up to date/ accessed by researchers across Europe/ the world?
- What existing therapies should now be tested in a prediabetes setting to arrest progression to type 2 diabetes?
- How has RHAPSODY progressed the case for prognostic/ therapeutic biomarkers in type 2 diabetes for the regulators?
- What prospective clinical trials will now be designed/ set up to start to translate new prognostic biomarkers into clinical practice?



Potential benefits from RHAPSODY: improve clinical trial efficiency

- **Select patients** based upon potential biomarkers for disease progression or disease status
- **Predict treatment outcomes** more accurately
- **Reduce cost** of development
- **Less burden for patients** recruited onto trials

Adams R, Daly N, Robertson E, Giordano GN. RHAPSODY, Biomarkers and Novel Clinical Trial design in type 2 diabetes (T2D) and prediabetes. Endocrinol Diab Metab. 2021;4:e00207.



Summary

- Type 2 diabetes is a complex condition and therefore needs a **personalised** approach to prevention, diagnosis, treatment and care linked to population scale interventions
- The importance of **translating** research into practice
- Strength of diabetes research in Europe and the need for more **investment** to take the work of RHAPSODY forward to benefit people living with diabetes and those at risk



Thank you for your attention!

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