

ATOS ORIGIN **Alliance**

Tomorrow's Communities

*Technology enabling pro-active, informed,
confident and effective teams.*

04 November 2008



Aim , measures and assumptions

Connecting communities

Personalised pro-active care will provide benefits for the whole system, this can be achieved in a cost effective manner and will enable people to live with their condition whilst also enabling the workforce to deliver service in an effective and enjoyable manner.

Some key measures:

- Positive clinical outcome
- Improve patient experience
- Cost effective delivery
- Sustainability
- Medication concurrence

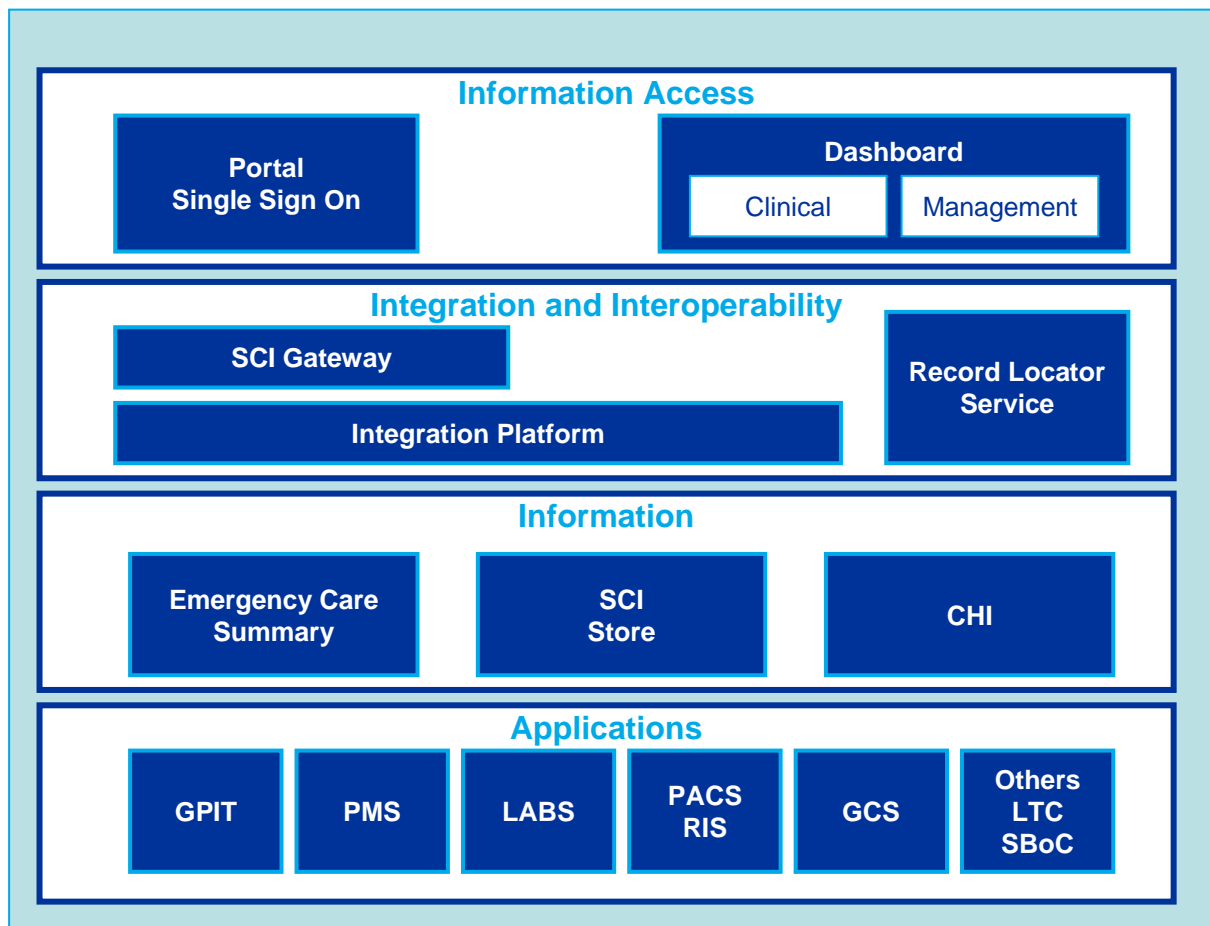
A few assumptions:

- The technology exists
- E Health infrastructure will be delivered over the next 4 years
- We will involve the community in service transformation

E Health – SGHD key building blocks

Key challenges:

1. Access
2. Shifting the balance of care
3. Long Term Conditions
4. Efficiency, Productivity & Effectiveness
5. Patient Safety
6. Patient Experience



Derek Feeley Director of Strategic Planning and Innovation, e Health 29th October 2008 Northern Planning Workshop

1 Diabetes – a key and growing challenge

National Diabetes Audit 2006 Scottish Diabetes Study 2006

- Only **16%** of children met the NICE guidelines of HbA1c < **7.5%**
- **28%** of children have an HbA1c in excess of **9.5%**
- **42%** of adults have an HbA1c in excess of **7.5%**
- Only **12%** of adults achieve the secondary target of **<6.5%**
- **24%** of adults achieve the BP target of **<135 / 75**
- Sharp rise in Renal Complication rates in the **25-39 years** age group.
- **2.35m prevalence 2006**
- **2.50m prevalence 2010**
- Obesity prevalence in excess of **60%**.
- **Scottish Diabetes Survey 2006**
 - **196801 2006**
 - **207112 2007**
 - **HbA1c is still a challenge**

Evidence and Opportunity

- UK Prospective Diabetes Study has highlighted that a 1% reduction in HbA1c can lead to a reduction of **30-40%** in complication costs.
- Complication cost currently estimated at **£2.0b** and growing.
- NHS Scotland collaborative work
- Keep Well prevention and diagnosis
- Paediatric working party report launched **March 2006** in House of Commons and Diabetes UK Professional Conference.
- Diabetes Commissioning Toolkit published November 2006.
- Clear positive evidence base.
- EU Cardiovascular Prevention guidelines are highlighting tighter control to reduce risk:-
 - **6.1% HbA1c**
 - **130/80 BP**

Ashes to Ashes

St Vincent Declaration 1989

Istanbul Commitment 1999

Representatives of government health departments and patients' organizations from all European countries met with diabetes experts under the aegis of the WHO Europe and the IDF Europe in St Vincent, Italy, in October 1989. They unanimously agreed on general goals for people with diabetes and on a lot of five-year targets in the framework of the St Vincent Declaration (SVD).

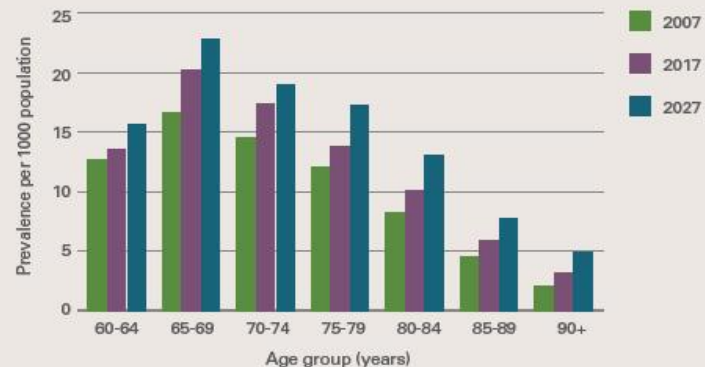
2 COPD – a major resource challenge

Audit Scotland

- Accounts for 60% of all UK deaths
- Accounts for 80% of GP consultations
- Accounts for 60% of hospital beds
- COPD prevalence in 2027 could be 33% higher
- Current UK COPD costs are estimated to be in excess of £1b
- 33% of households in Scotland have at least 1 Long Term Condition
- 1m people in Scotland have at least 1 Long Term Condition

Exhibit 2

Projected prevalence of COPD in people aged 60 and above over the next 20 years



Source: ISD Scotland, 2004/05; GAD population projections, 2005

- 1 *Chronic conditions: Making the case for ongoing care*, Partnerships for Solutions, John Hopkins University, December 2002.
- 2 *Preventing chronic diseases: a vital investment*, World Health Organisation, 2005.
- 3 *Chronic disease management. A compendium of information*, Department of Health, May 2004.
- 4 *A health and well-being profile of Scotland*, NHSScotland, 2004.
- 5 *Scottish Household Survey*, Scottish Executive, 2003.
- 6 These projected increases for COPD and epilepsy were estimated by applying the UK Government Actuary's Department (GAD) projected population increases by age group to the prevalence figures for COPD and epilepsy on the Quality and Outcomes Framework (QOF) registers in 2004/05.
- 7 ISD is part of NHS National Services Scotland.

Treating patients like gold!

10
CITIES
PROJECT

EasyJet

Google

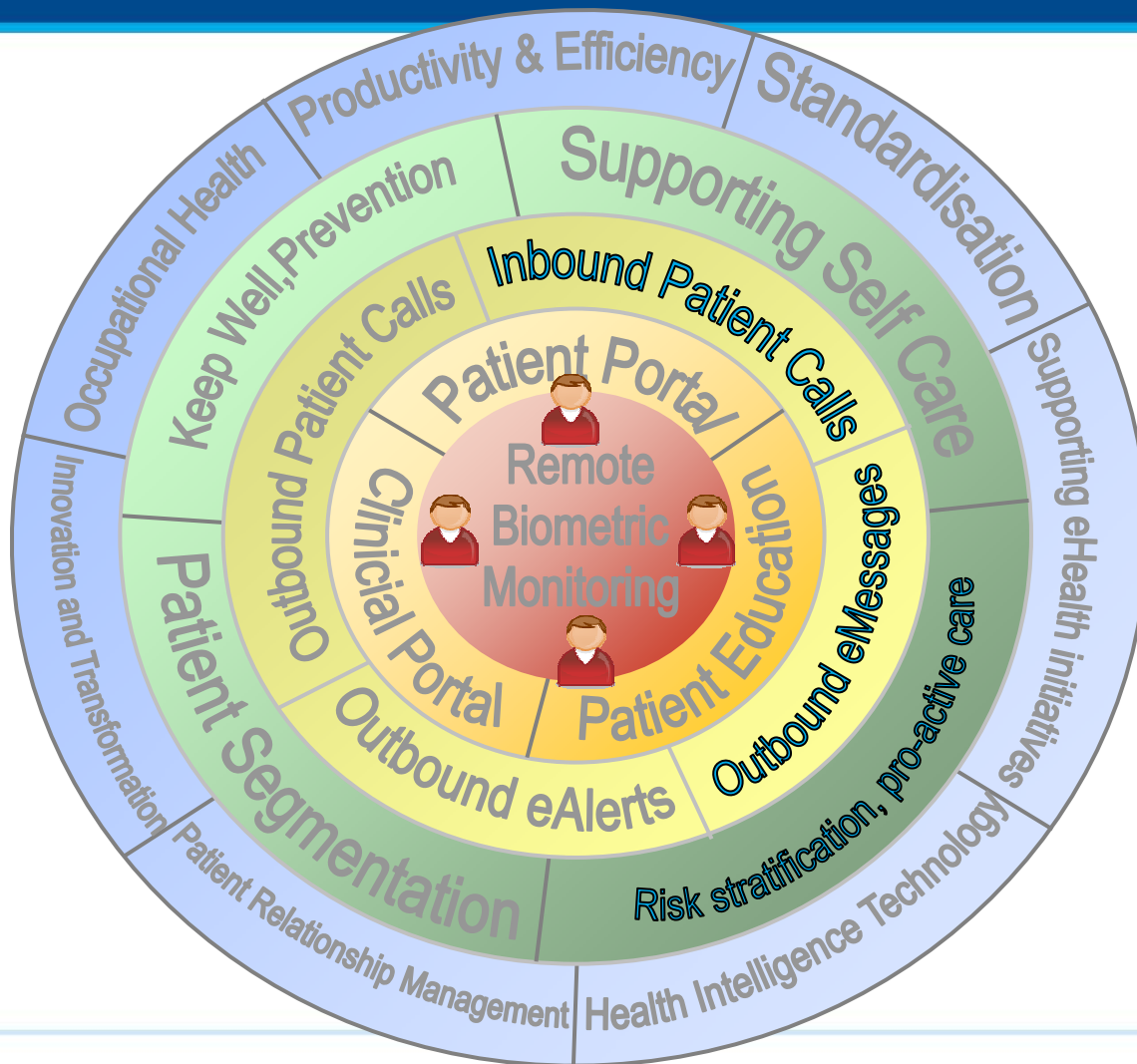
SALFORD
CARECALL

UCLH
Paediatric
Diabetes

PC World

Nationwide

CROYDON
VIRTUAL
WARD



University College London Foundation Trust

Institute of Child Health



Pro-active care study



WHAT IS IT ABOUT?

To allow children and young people with diabetes to discover and develop their own capacity to be responsible for their own life

The choices made every day in the self management of diabetes produce consequences that accrue first and foremost to the person making those decisions and they matter

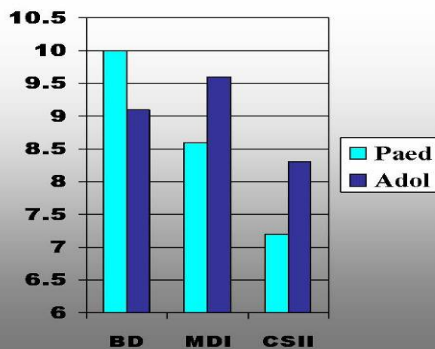
Glucose is merely an imperfect reflection/measure of those choices and as they accrue (HbA1c) produce consequences for that person

p.hindmarsh@ucl.ac.uk

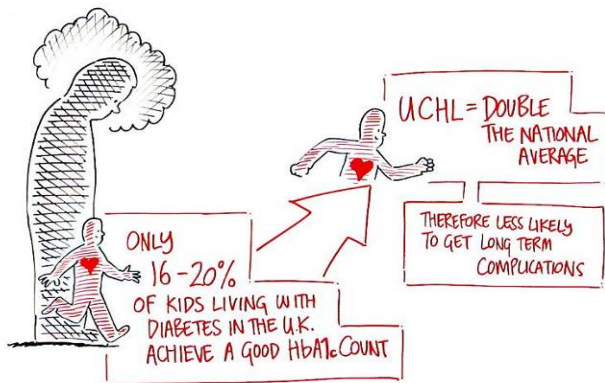
NHS

UCLH Paediatric Diabetes – the challenge!

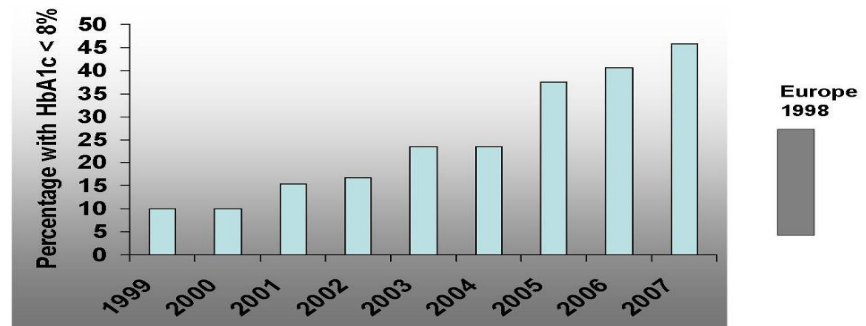
UCLH HbA1c MEASURES 2006



- Mean clinic HbA1c
 - Paed 8.3%
 - Adol 9.3%
- CSII mean HbA1c
 - Paed 7.2%
 - Adol 8.3%



UCLH HbA1c MEASURES LESS THAN 8% 1999-2006



Care Study- Healthcare 2008

1 INTRODUCTION

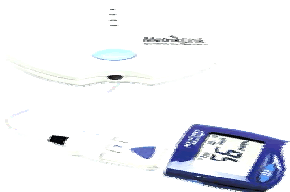
Only 17% of children achieve adequate control of their diabetes



Long-term complications

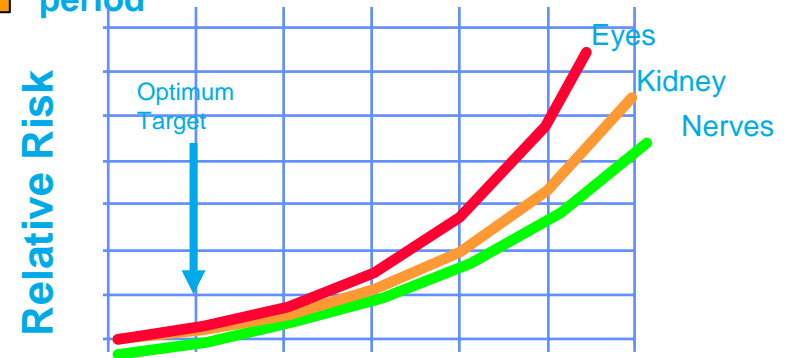
- Renal failure
- Lower limb amputation
- Blindness
- Coronary heart disease
- Reduced fertility

3 Information technology sits at the interface between monitoring and informing therapeutic decision making.



Web based care-management system developed by iMetrikus inc (Carlsbad, California, USA)

2 A small improvement would reduce by half the risk of developing eye and kidney problems over a 10 year period



4 DESIGN Randomised Control Trial Children/Adolescents 8 – 18 years old



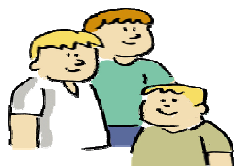
5

Clinical data, qualitative and quantitative data currently being analysed

Clinical	Investigations	Lifestyle
Height Weight HbA1c Blood glucose measurements (number and mean in previous month) Hypoglycaemia measures	Use of new system Patient satisfaction Ease of use	Diabetes Family Responsibility Questionnaire (DFRQ) Paediatric Quality of Life (PedsQoL) – diabetes module Strengths and Difficulties Questionnaire (SDQ) The Stages of Change Readiness and Treatment Eagerness Scale (SOCRATES)

6

RESULTS
High acceptability and enthusiasm
Only 4% drop-out.



7

Preliminary results are positive

Used regularly to download blood glucose measurements.
Easy to set up and use.
Helpful to see real time patterns of control
Good way of storing data.
Useful format for clinic discussions and informed therapeutic decision making.

It's completely separate from emails to my friends or things that I do outside of diabetes. So it's separate and I can forget about it when I go onto Hotmail because I haven't got diabetes . . .

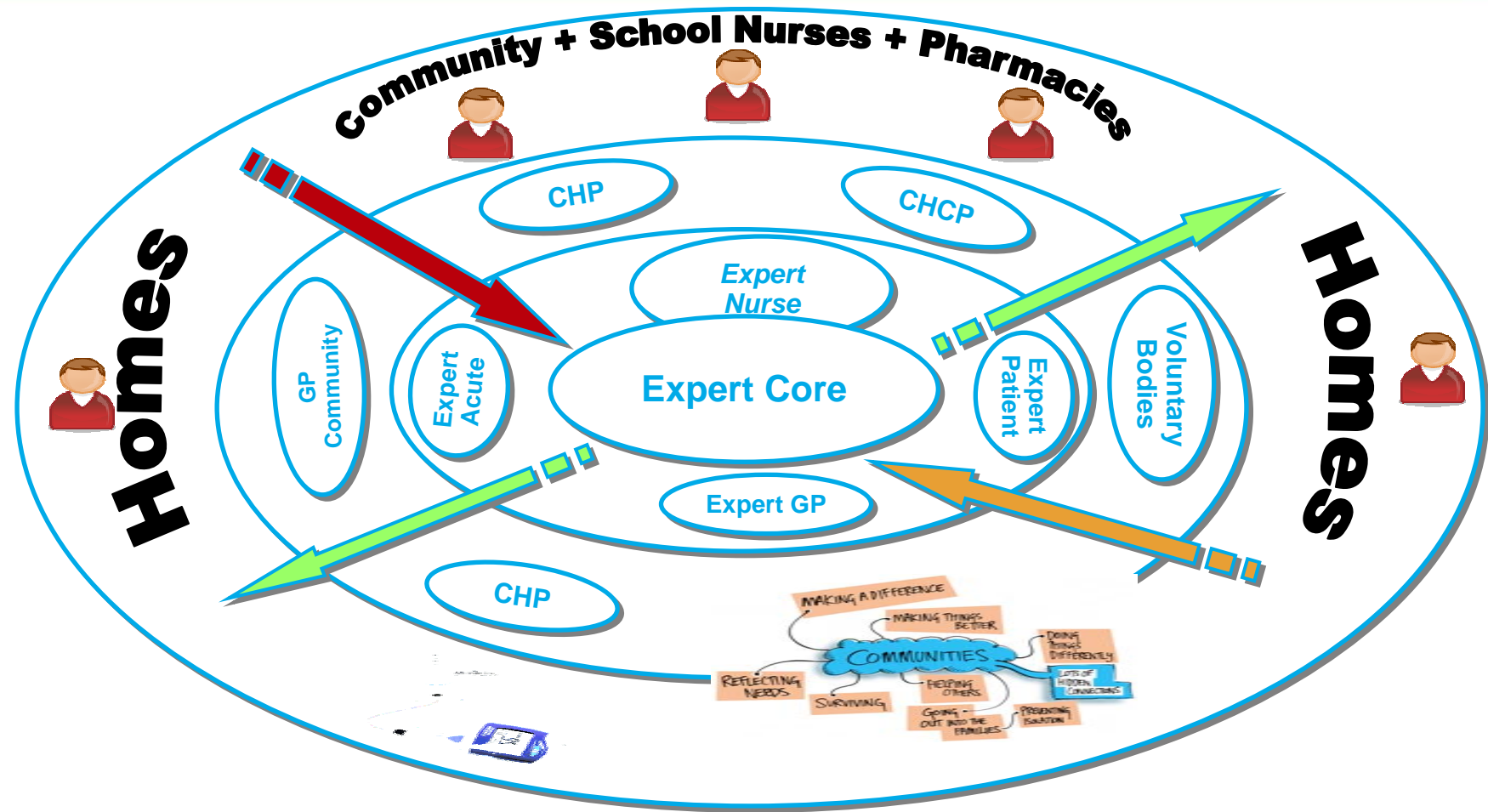
Before if I wanted help, I'd have to write up everything, you know, type it all out on an email and it would take ages. Now I just say 'could you please just look at this data and give me some advice?' So I don't need to come into the hospital as much, 'coz I can just email them specific problems, rather than come in now.



A feasibility trial to assess a web-based care management system to improve self-management and health outcomes in diabetes in children and adolescents

Deborah Christie¹, Gabriella Romano¹, Russell Viner², Rebecca Thompson¹, Louise Potts¹, Peter Hindmarsh²
1. UCL Hospitals NHS Foundation Trust 6th floor, Central, 250 Euston Road, London, NW1 2PG
2. UCL Institute of Child Health

Supporting tomorrow's communities – Paediatric Diabetes



Salford PCT Carecall

Salford Community

Salford PCT

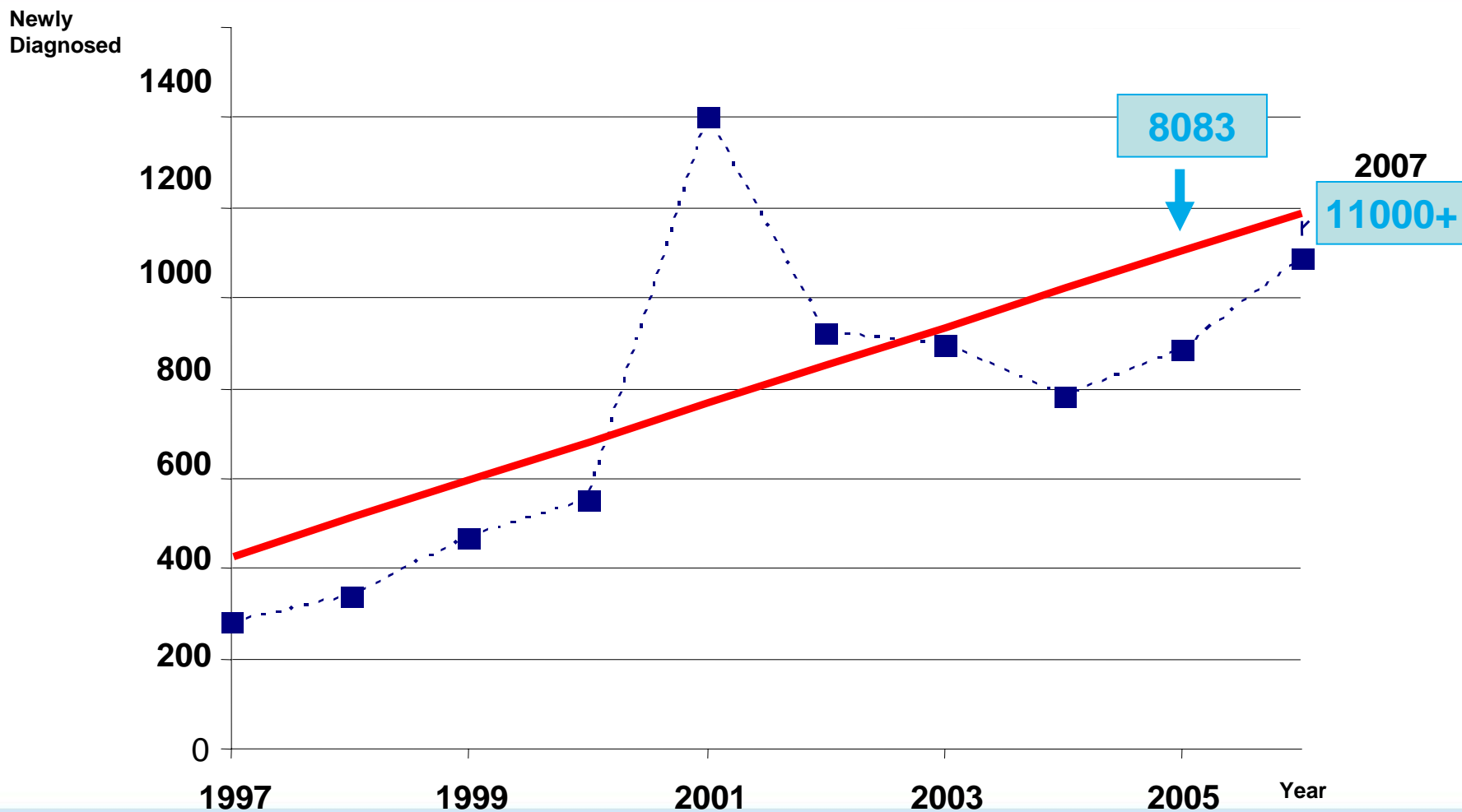
Salford City Council

Salford Royal Foundation Trust

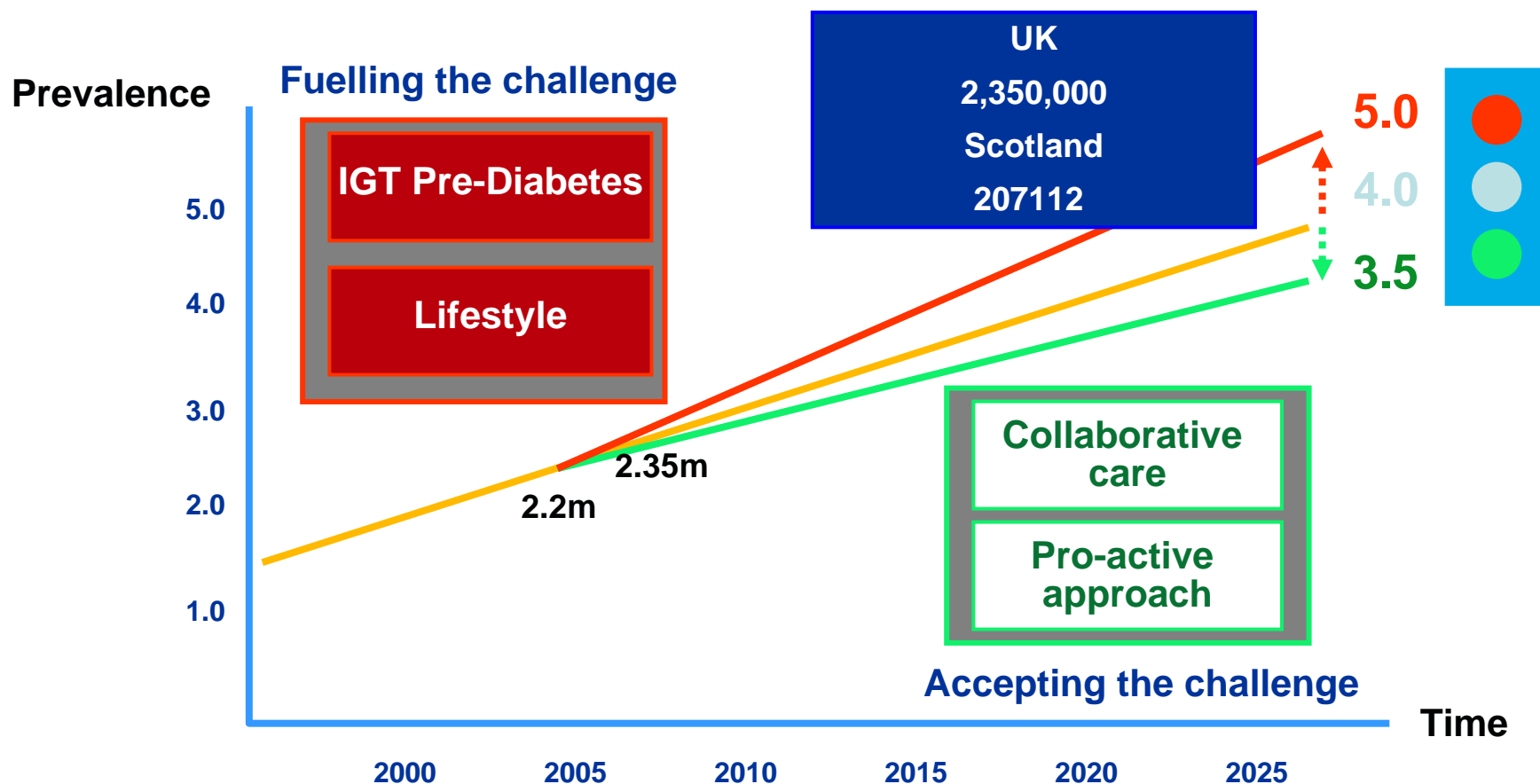
Diabetes UK

Diabetes Research Network

Salford PCT rising prevalence



How do we delay the growth in Type 2 Diabetes?



Salford – enabling people to live with Diabetes

Challenge

- Cost complication/medication
- Patient safety
- Capacity and sustainability
- Engaging people
- Better outcomes

Creative intervention

- Proactive interaction
- Reinventing service delivery
- Personalisation
- Empowering patients/families
- Healthcare Assistants

Enhance service delivery

- Shifted the balance of care
- LTC Information System
- The virtual healthcare community – chronic care model
- Community understanding

Creative outcome

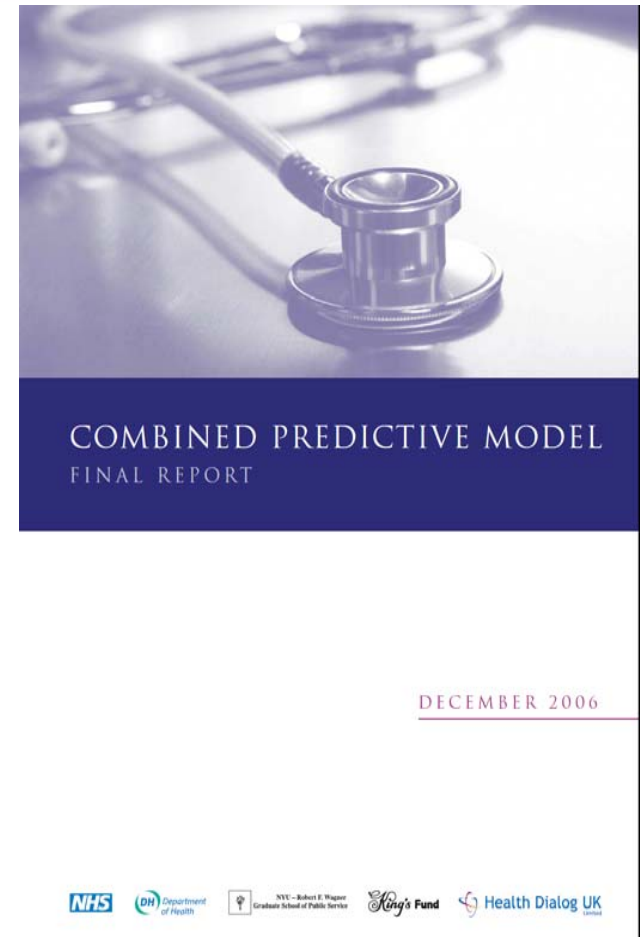
- 0.4% reduction in HbA1c
- 85%+ patient acceptability
- 75% delivered by new workforce
- Medication cost neutral
- 3 year sustainability

<http://care.diabetesjournals.org/cgi/content/abstract/28/2/283>

<http://care.diabetesjournals.org/cgi/content/abstract/28/2/278>

Croydon PCT Virtual Ward – Health Intelligence

- Innovative service redesign
- Referral from Combined Model
- Multi-disciplinary teams
 - NHS
 - Social Care
 - Voluntary
- 10 wards of 30000 population
- 100 patients in virtual wards
- 4 individual HSJ awards
- Society Guardian Innovation Award
- Innovative community networking



Other eHealth / community based initiatives

- **Asheville project 1996**
 - Public Sector Occupational Health
 - Reduced and sustained 1% HbA1C reduction
 - Led to the 10 city challenge
- **Ten Cities Challenge USA**
 - <http://www.diabetestencitychallenge.com/>
 - 30 employers, 100+ local pharmacies
 - Mean HbA1C has reduced from 7.6% to 7.2%
- **West of Scotland Cancer Network**
- **Minor injuries – NHS Grampian**
- **Patient safety**
- **NHS Lanarkshire COPD initiative**

The corporate world – treating customers like gold

EasyJet – customer experience

PC World – customer experience

Nationwide – information governance, trust

Google – rapid access to information?

Laterooms.com

The key questions?

How do we accelerate evidence based eHealth across whole system communities?

What are the barriers?

How do we best engage the public?