Opportunities to bring about transformational change: Role of Information

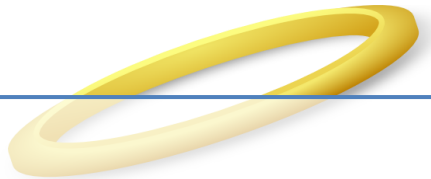
Jeremy Martin, Symphony Project

THE NHS CONSTITUTION
the NHS belongs to us all

Summary

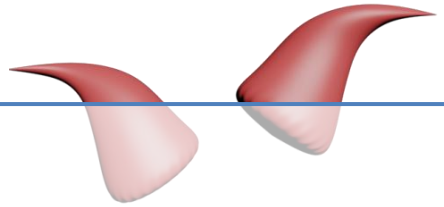
- NHS has both the **boon** of having one of the best set of raw electronic data for patients, and the **bane** of not being able to use it optimally
- Evidence from **local efforts** – and **Jeremy Martin** from Somerset will take us through that – within the UK suggest this is **imminently doable**, and there is no reason that should be holding us back

The boon & bane of patient data in NHS



NHS number – the unique identifier that can link all care across settings at a patient level

Unrivalled data and **highest penetration of use of electronic data records** across settings anywhere in the world



Current Information Governance rules make it **hard to share**

Data quality is not always good, and compatibility issues

Big **NHS and Social care divide**

5 core uses of connected patient data

Purpose / Use	Example applications
Patient empowerment	▪ Access to own medical record, care plan, activity history, patient level outcomes etc. ▪ Patient goal setting and compliance
Better care coordination	▪ Event notification (eg for A&E, or NELIP admission) ▪ Care coordination & work flow planning across providers ▪ Tailored care plans and integrated care
Improved clinical decision making	▪ Visibility of care records, care plans, medicine and other condition specific information from across care settings at the point of delivery ▪ Pro-active management of long term conditions e.g., through use of risk stratification and patient segmentation
Better System design	▪ Understanding current and future population needs and future demands and changing care provision to match need ▪ Transparency and tracking of outcomes at a pathway and provider level
Payment innovation	▪ Linking payments to outcomes at a provider level ▪ Designing capitated payment models ▪ Risk sharing between providers ▪ Contract design and incentive alignment

SYMPHONY

Person-Centred Coordinated Care

- **Jeremy Martin, Project Director, Symphony Project, Somerset Clinical Commissioning Group**

SYMPHONY

Person-Centred Coordinated Care

Somerset Clinical Commissioning Group

Somerset County Council

Somerset Partnership

CHE Centre For Health Economics

Yeovil District Hospital NHS Foundation Trust

South West Commissioning Support

Dorset Clinical Commissioning Group

NHS England

Bristol, North Somerset, Somerset and South Gloucestershire Area Team

Aims

- Understand current patterns of utilisation and cost
- Understand what drives these patterns
- Develop an approach to decide which group to target
- Develop method to calculate shared budget and impact on each organisation
- Develop approach to tracking and evaluation

THE UNIVERSITY of York

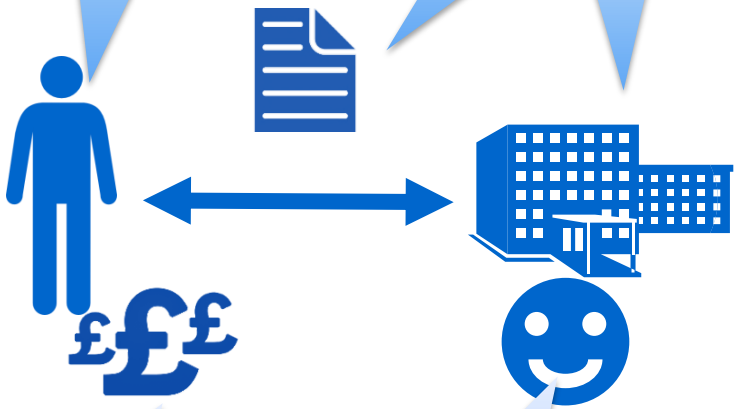
CHE
Centre For Health Economics

The Data-Set

- Fully pseudonymised
- South Somerset GP Federation (109,000 patients)
- Majority of activity and cost at patient level for:
  - Primary care
  - Community hospitals
  - Mental health (community and inpatient)
  - Acute
  - Social care
  - Continuing health care
- Age, sex, clinical conditions, ward of residence
- It’s evolving

10 design elements of connected datasets

Every time care is delivered to an individual various kinds of information is generated



i **Patient attribution**
ii **& characteristics:** *Who is the user / patient? Their name, conditions...*

iii **Provider & activity details:** *What care is provided? Where is care provided? By whom?*

iv **Cost calculation:** *How much does the care cost the tax payer?*

v **Outcome details:** *What is the final outcome? Result, quality?*

Creating PLLD involves capturing this information for all interactions and linking them at a person level

vi **Time period covered:** *For as long a time period as appropriate and necessary*

vii **Frequency:** *As soon after the interaction as possible*

viii **Safety and IG Compliance:** *In an IG compliant manner*

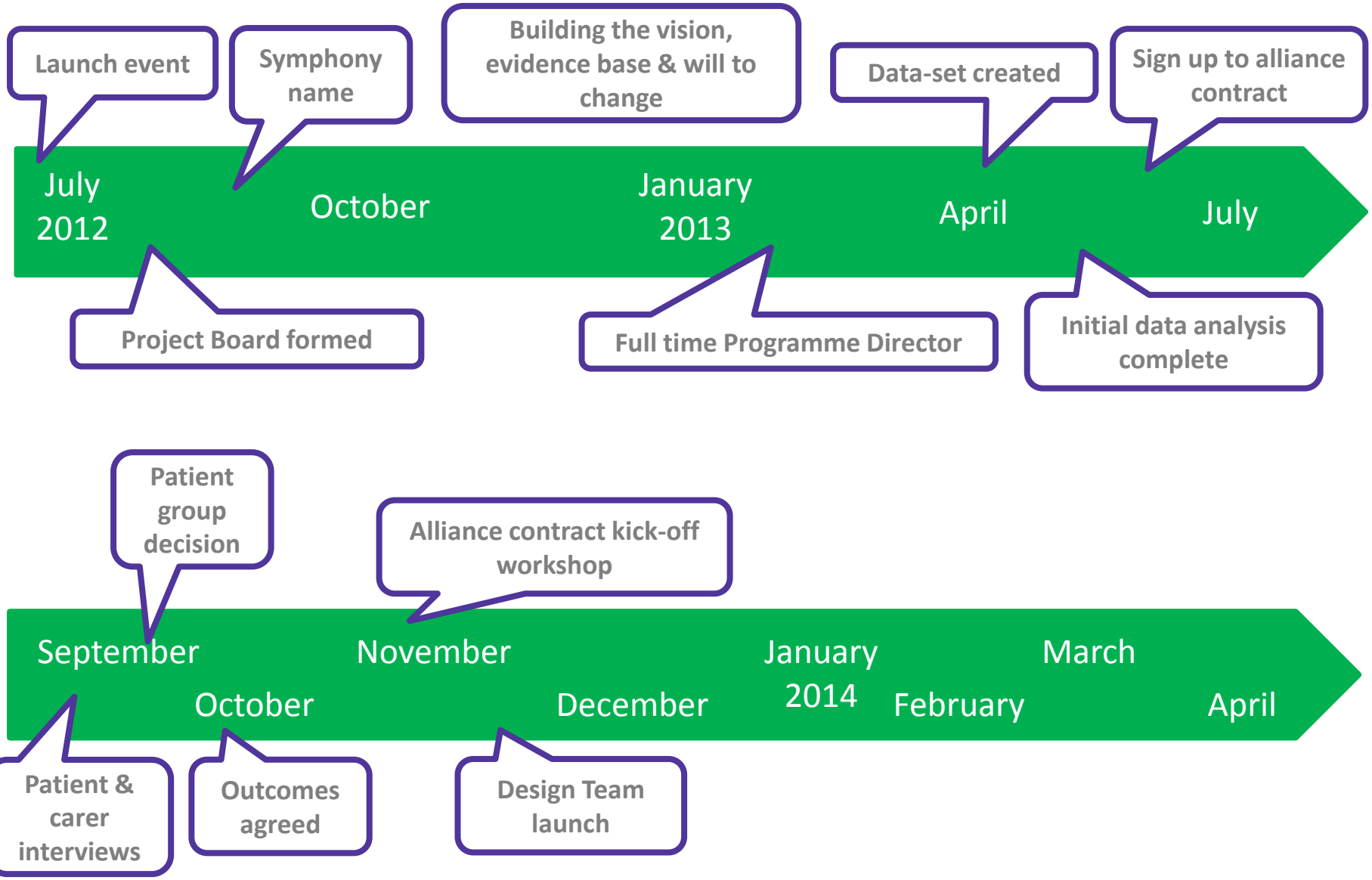
ix **Technology solution:** *Using an appropriate technology solution*

x **Scope**

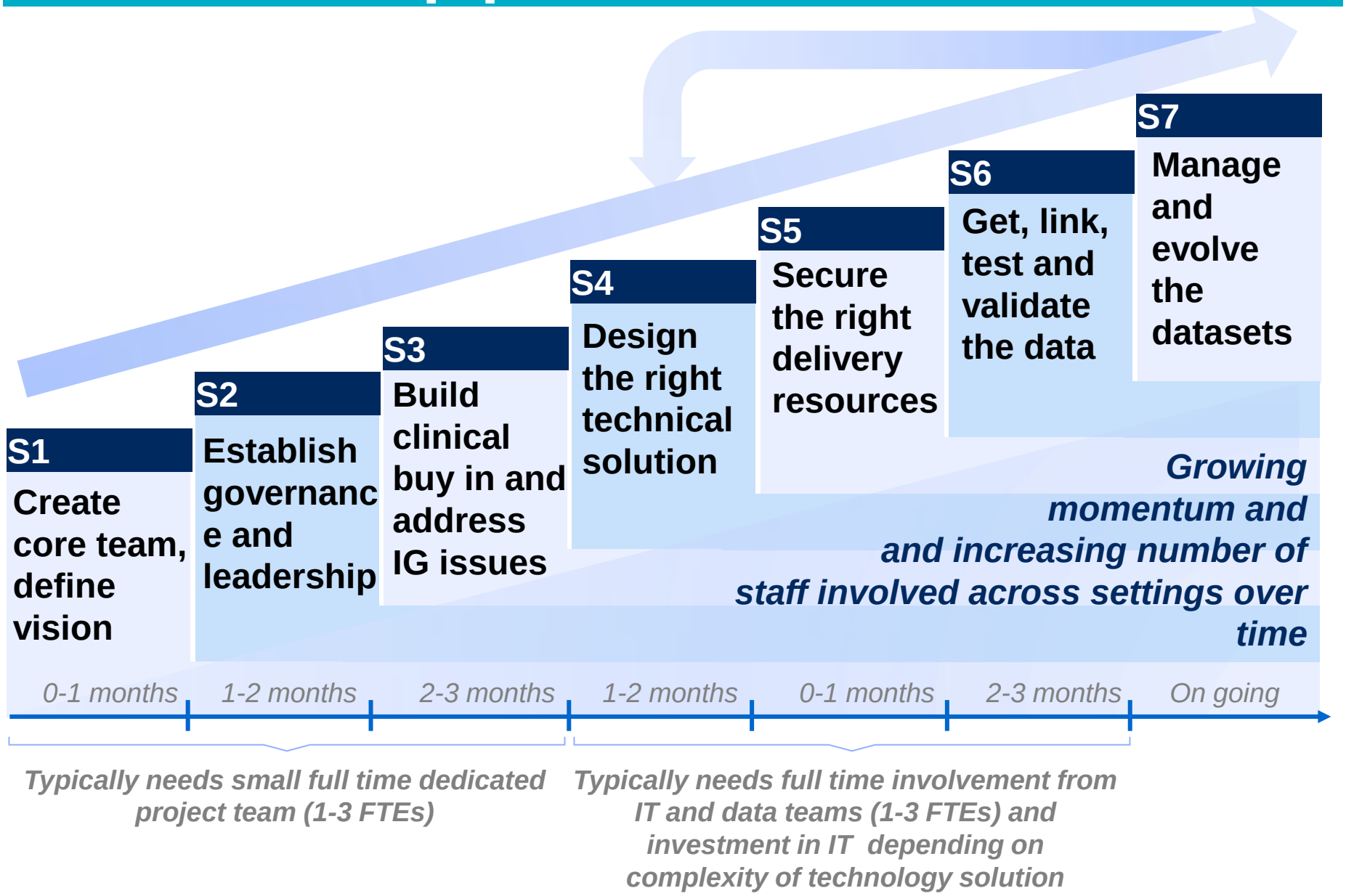
Settings covered: *For as many providers as possible*

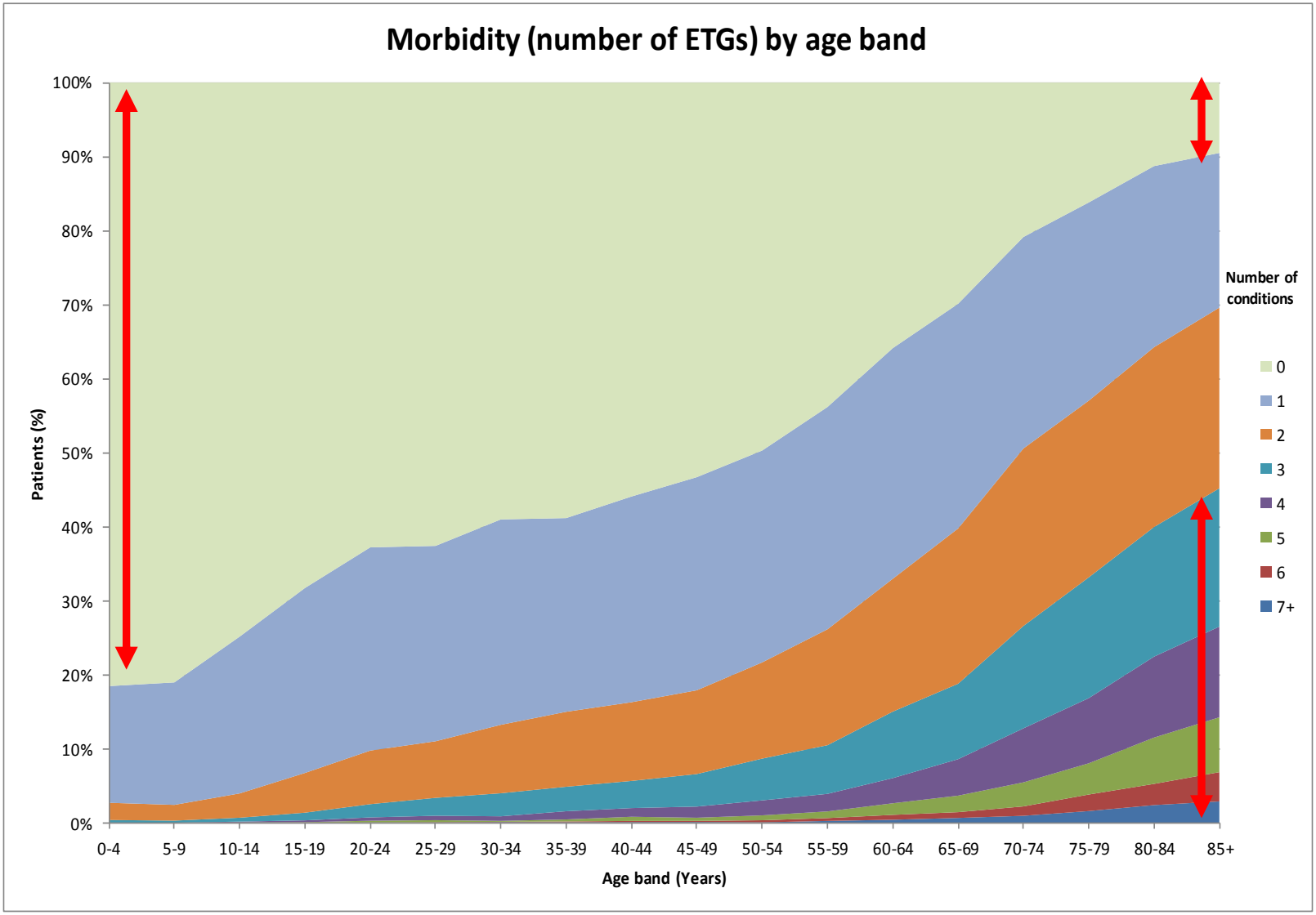
Patients covered: *For as many individuals as possible*

Timescale

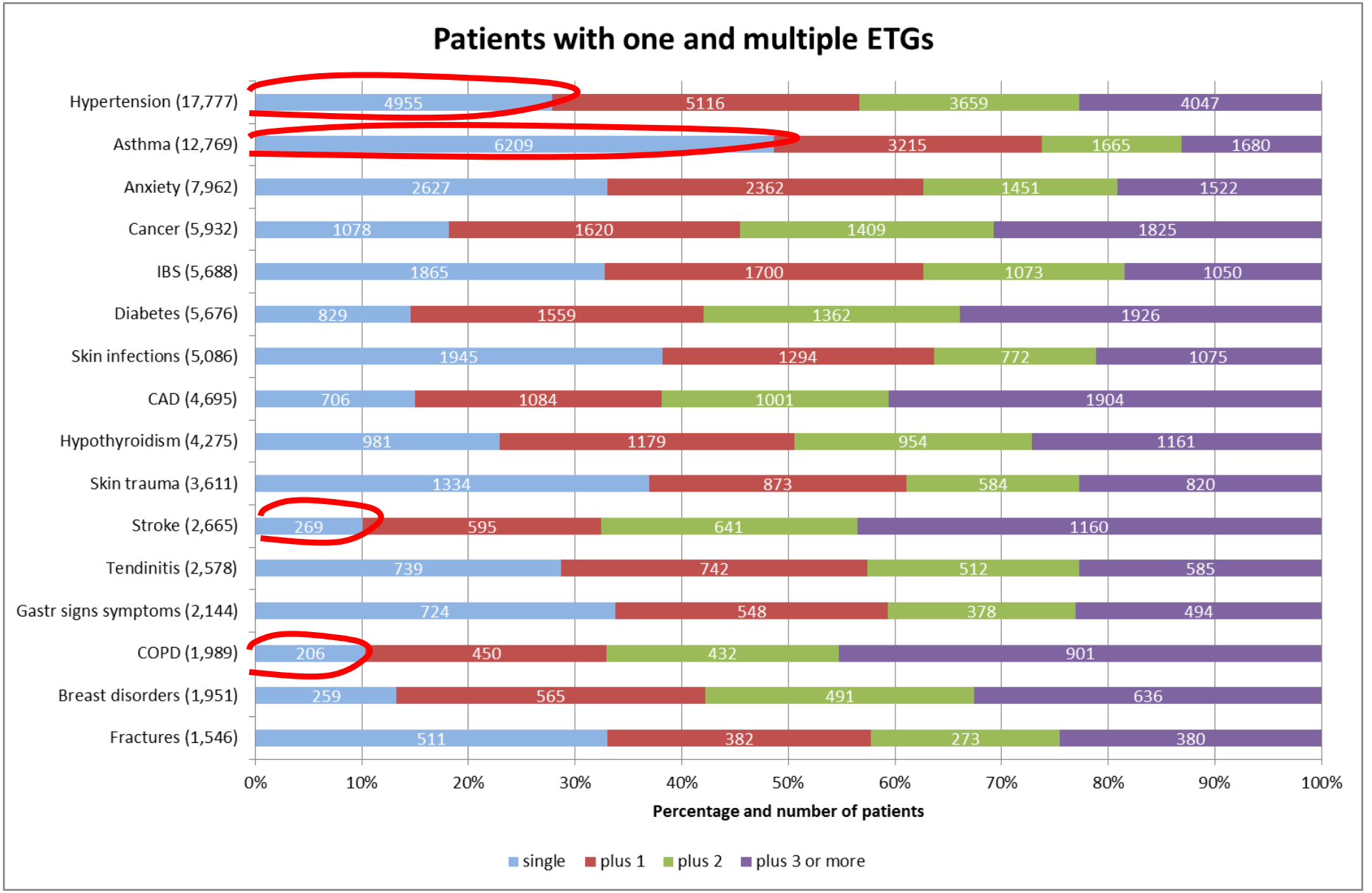

Launch event
Symphony name
Building the vision, evidence base & will to change
Data-set created
Sign up to alliance contract
July 2012
October
January 2013
April
July
Project Board formed
Full time Programme Director
Initial data analysis complete
Patient group decision
Alliance contract kick-off workshop
September
November
January 2014
March
October
December
February
April
Patient & carer interviews
Outcomes agreed
Design Team launch

Generic 7 step process

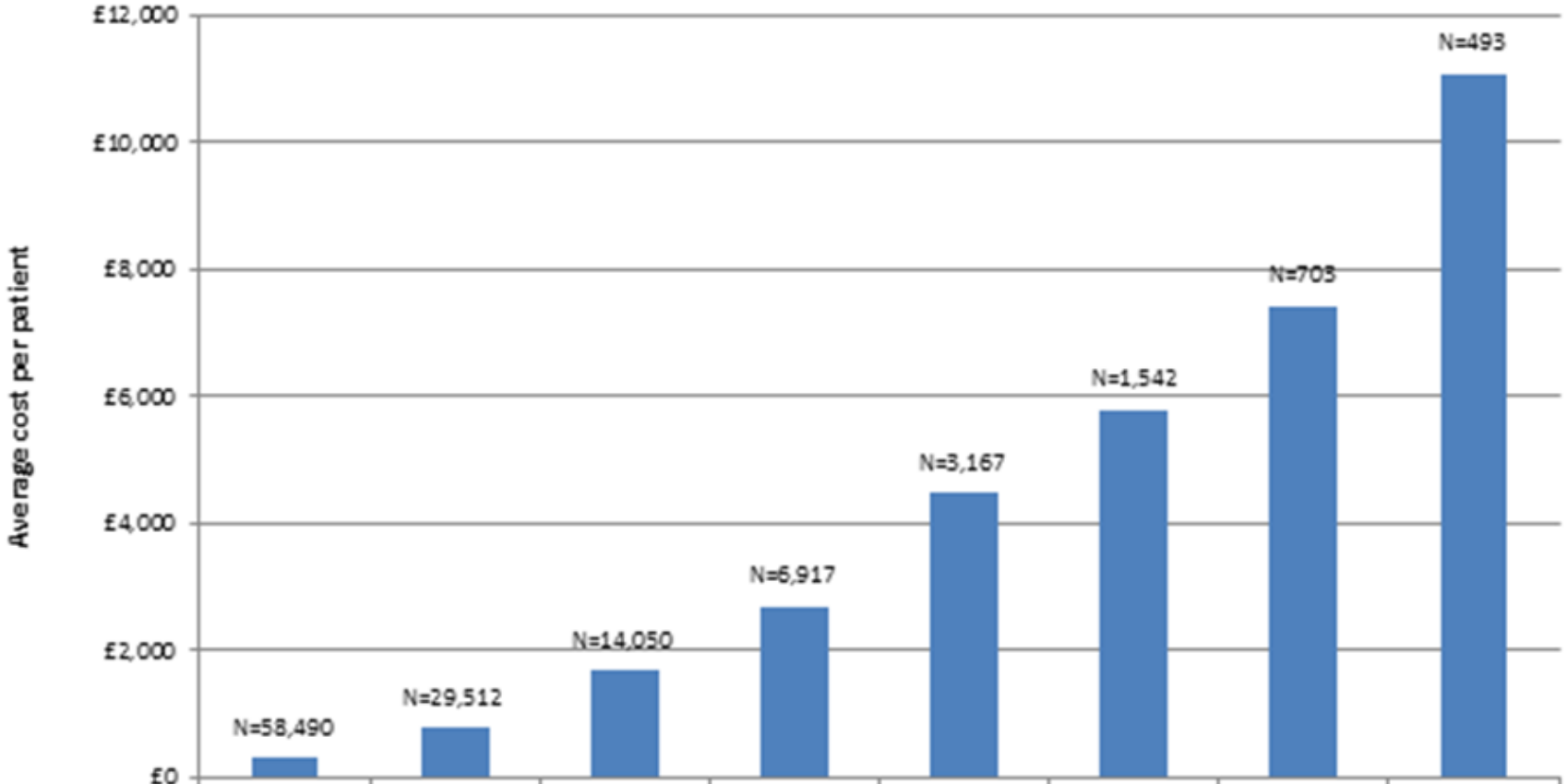



Morbidity (number of ETGs) by age band
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Patients (%)
0-4
5-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70-74
75-79
80-84
85+
Age band (Years)
Number of conditions
0
1
2
3
4
5
6
7+

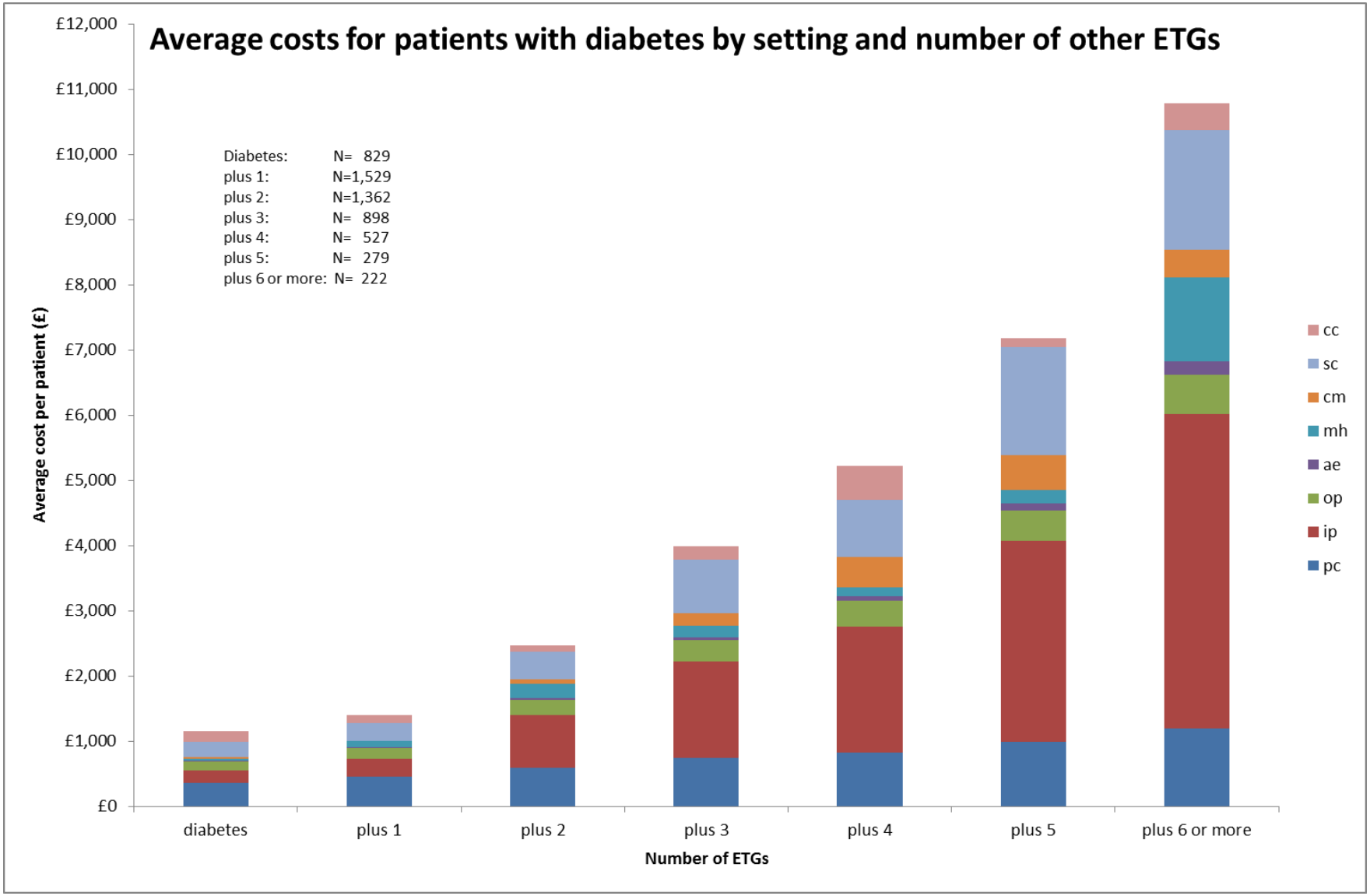
Regression variables	Age	Number of conditions	Age, Number of conditions
Variation explained	3.36%	18.76%	19.30%


Patients with one and multiple ETGs
Hypertension (17,777)
4955
5116
3659
4047
Asthma (12,769)
6209
3215
1665
1680
Anxiety (7,962)
2627
2362
1451
1522
Cancer (5,932)
1078
1620
1409
1825
IBS (5,688)
1865
1700
1073
1050
Diabetes (5,676)
829
1559
1362
1926
Skin infections (5,086)
1945
1294
772
1075
CAD (4,695)
706
1084
1001
1904
Hypothyroidism (4,275)
981
1179
954
1161
Skin trauma (3,611)
1334
873
584
820
Stroke (2,665)
269
595
641
1160
Tendinitis (2,578)
739
742
512
585
Gastr signs symptoms (2,144)
724
548
378
494
COPD (1,989)
206
450
432
901
Breast disorders (1,951)
259
565
491
636
Fractures (1,546)
511
382
273
380
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Percentage and number of patients
single
plus 1
plus 2
plus 3 or more

Average cost per patient by number of ETGs



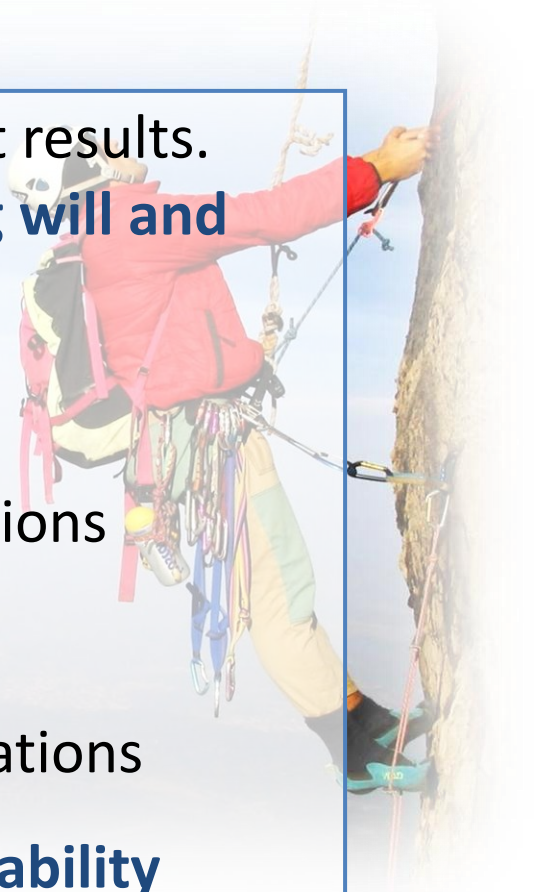
	0	1	2	3	4	5	6	7+
Cost/patient	£311	£799	£1,681	£2,699	£4,473	£5,800	£7,426	£11,092


Average costs for patients with diabetes by setting and number of other ETGs
Diabetes: N= 829
plus 1: N=1,529
plus 2: N=1,362
plus 3: N= 898
plus 4: N= 527
plus 5: N= 279
plus 6 or more: N= 222
£12,000
£11,000
£10,000
£9,000
£8,000
£7,000
£6,000
£5,000
£4,000
£3,000
£2,000
£1,000
£0
Average cost per patient (£)
diabetes
plus 1
plus 2
plus 3
plus 4
plus 5
plus 6 or more
Number of ETGs
cc
sc
cm
mh
ae
op
ip
pc

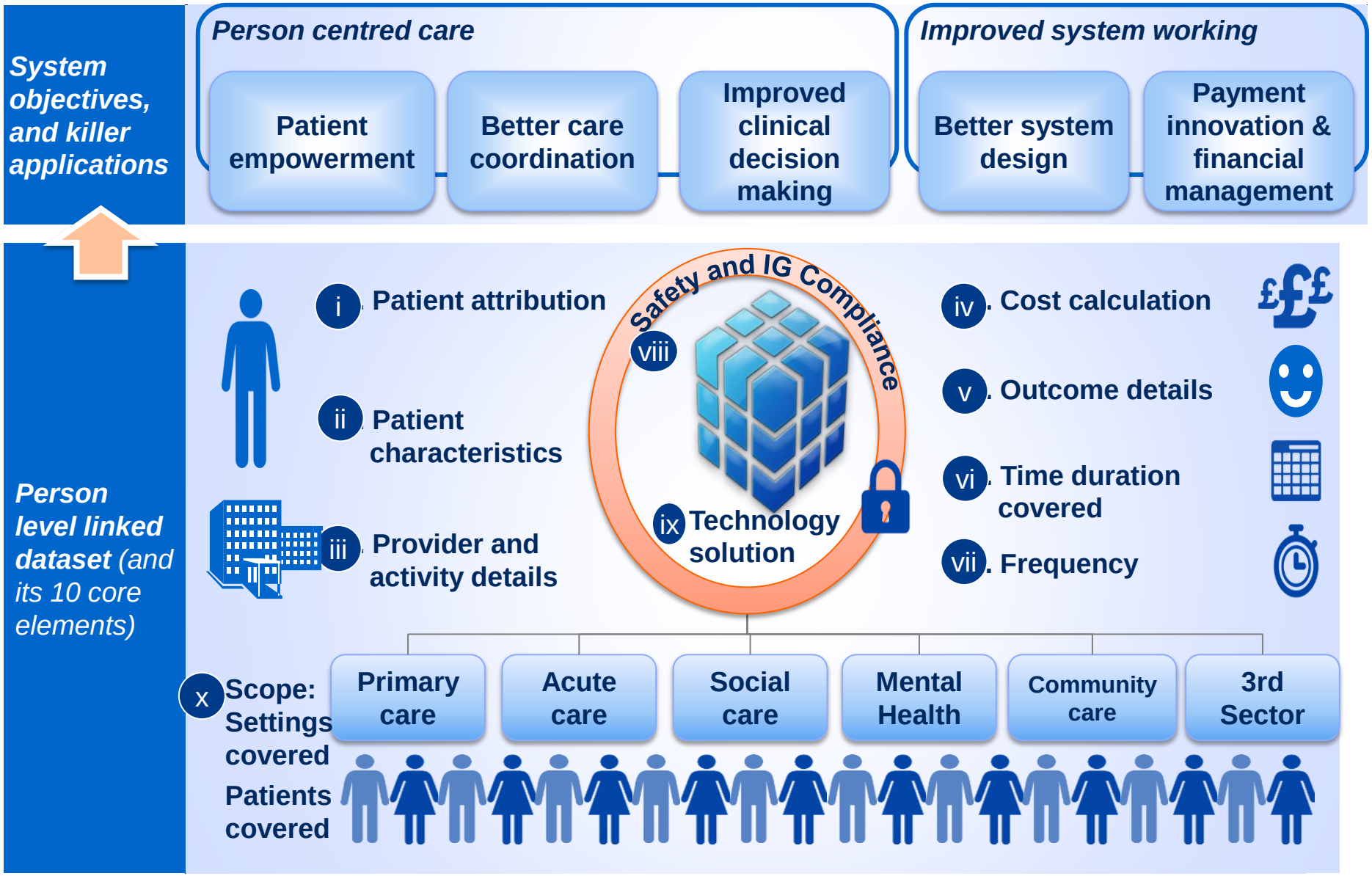
Learnings & success factors

Minimum 6 month journey from start to first results. 12-18 months overall. Requires both **undying will and skill**

- **Clarity of vision** and purpose
- **Chief Executive leadership** across organisations
- Complete **clinical buy in** from start to finish
- Exhaustive **Information governance** negotiations
- Significant **Investment in technology & capability**
- Distinguished **management and execution skills**



In summary…



SOURCE: McKinsey & Company