

Moving to Value-Based Healthcare (as part of an innovation approach)



Llywodraeth Cymru
Welsh Government

www.cymru.gov.uk

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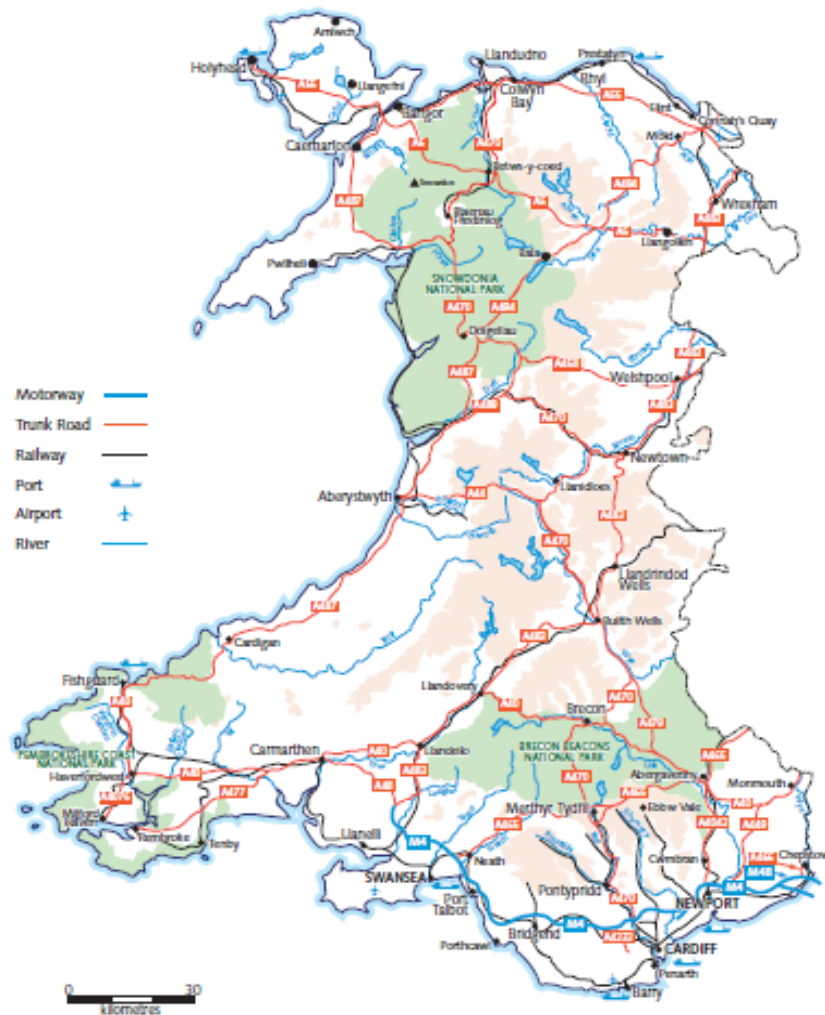
Acknowledgements:

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Assistant Medical Director/Programme Director
Value-Based Health Care

“The nine most terrifying words in the English language are: I’m from the Government, and I’m here to help.”

—RONALD REAGAN





Much of the country is rural.....



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... but with an industrial legacy



Health & Care in Wales

– headline statistics

- Population 3.1 million
- 7 health boards, 22 local authorities
- NHS with full population responsibility
 - primary, community, mental health & acute
 - Social care with Local authorities
- Health & care Budget €8.9billion per annum – over half of our budget
- NHS Workforce 84,000fte



**19 Million
Primary
contacts**



**500,000
ambulance
calls**



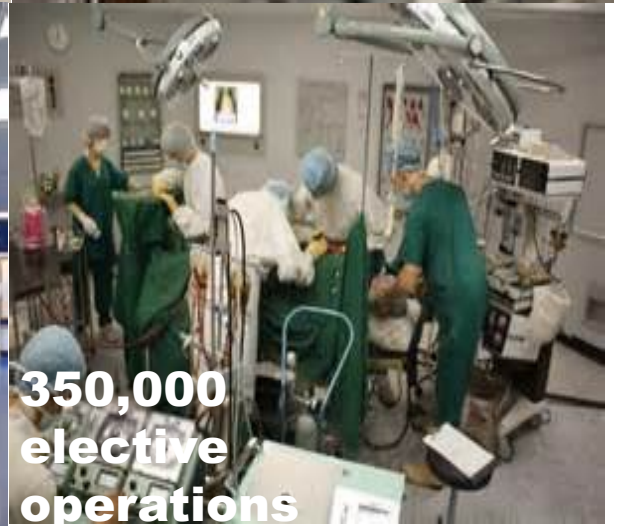
**1 Million
emergency
attendances**



**400,000
emergency
admissions**



**3 million
outpatient
attendances**



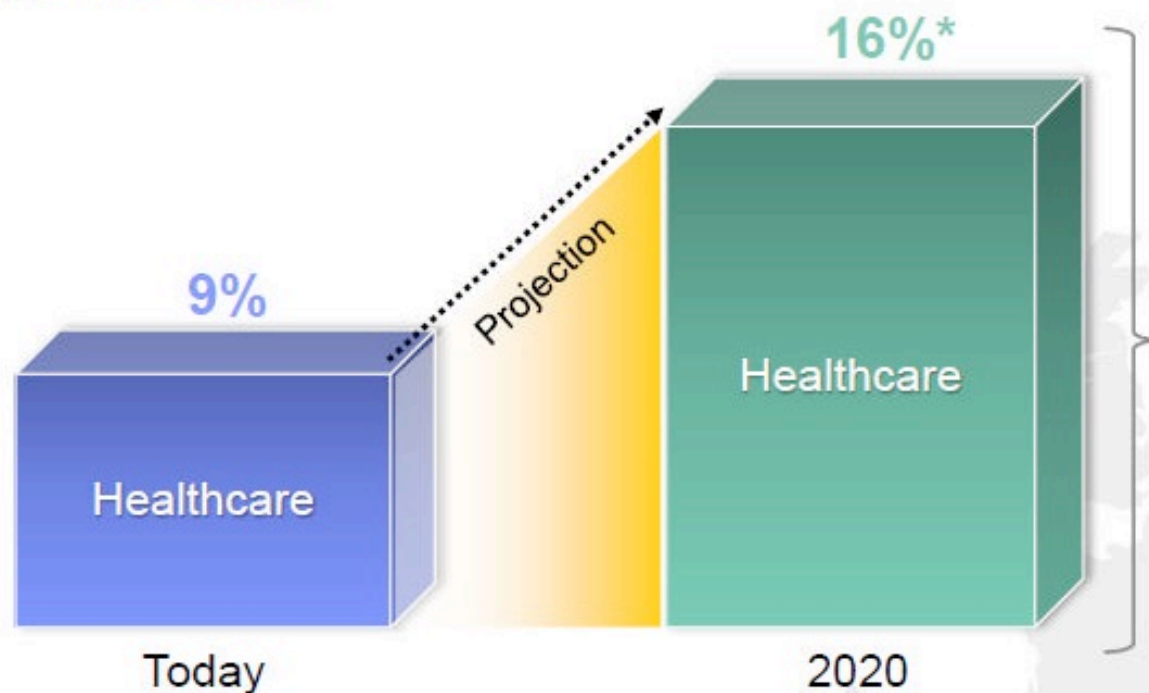
**350,000
elective
operations**

Challenge: Rising Healthcare Costs

Healthcare costs are rising quickly

GDP and government resources are not

Healthcare Costs Rising Throughout Europe (% of EU GDP)



Need to Transform European Healthcare Systems:

Reduce Costs



Improve Care

Challenge: Lifestyle & Demography



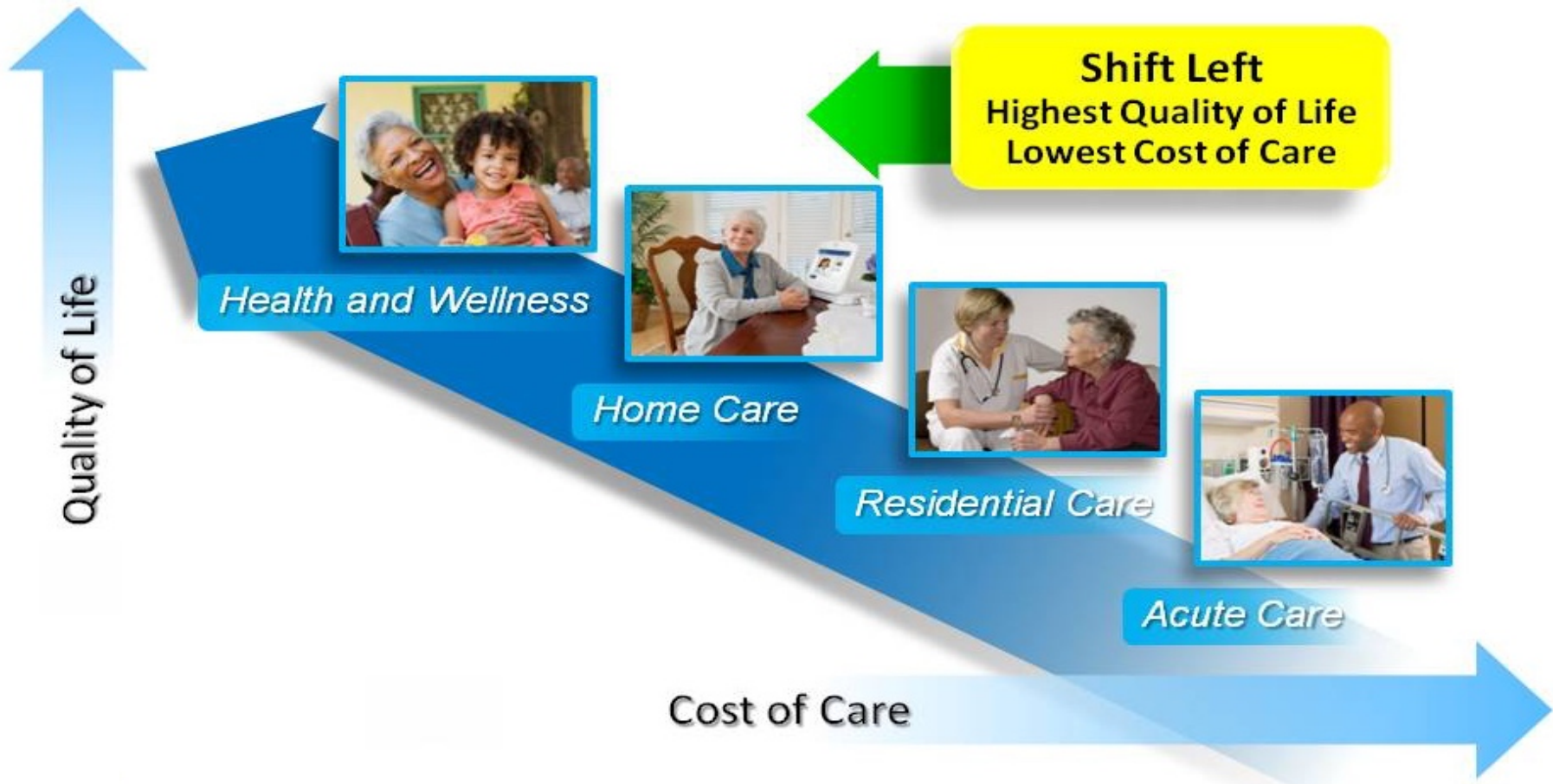
Age impacts what we care about



Lifestyle and demographic challenges are fuelling health inequalities

Need: reduce costs and improve quality of life

Need to shift the Continuum of Care



A global opportunity: Connectivity

The living services wave



New devices and connected sensors enable the capturing of massive amounts of highly fluid data.

- **Living entities** – living and evolving entities. We need to design for fluidity and change.
- **Built for and around people** – built around people and their lives, adapting to context and needs.
- **Natural interfaces** – go beyond click & touch, to voice, gestures, info from body sensors, etc.

Digital is transforming the world

“Re-imagination of nearly everything powered by New Devices + Connectivity + UI + Beauty”

Mary Meeker of KPCB

The biggest enabler is sensors

“People ask me what Web 3.0 is all about. It’s about the web of sensors”

Tim O’Reilly

Digital and mobile disruption



Traditional industry verticals are often inward-looking.

The disruption starts from a broader consumer-led domain.

The medical sector is a prime example of this.

Mary Meeker estimates the ‘re-invention’ market impacted to have a turnover of **over \$35tn**.

Responses

- Comprehensive and novel legislation, strategies and programmes
 - Well-being of Future Generations (Wales) Act 2015
 - Social Services and Well-being (Wales) Act 2014
 - Digital Health and Care Strategy – 2016
 - Once for Wales approach
 - Value based approach
- Clear Health and Wealth Strategy
- Smart Specialisation – life science and digital
- Targeting Innovation Funds
- Champions

Prudent Healthcare

The 4 principles of prudent healthcare

Public and professionals are **EQUAL PARTNERS** through **CO-PRODUCTION**

CARE FOR those with the greatest health need **FIRST**

Do only **WHAT IS NEEDED** and do **NO HARM**

Reduce **INAPPROPRIATE VARIATION** through **EVIDENCE-BASED** approaches

For further information visit www.prudenthealthcare.org.uk

Grasping the opportunity to bring evidence-based practice to bear and work with patients

Provides the authority to explore and embrace new ways of working that drive increased healthcare value



Measured Respectful Equitable

Measured



Doing more does not mean doing better

The dissemination and use of new treatments and new diagnostic procedures is not always accompanied by greater benefits for patients. Economic interests, as well as cultural and social pressures, encourage both an excessive use of health services and an expansion of people's expectations beyond what is realistic, what the health system is able to deliver. Not enough attention is paid to the environment or the integrity of the ecosystem.

A measured medicine involves the ability to act with moderation, gradually, and essentially, and uses the resources available appropriately and without waste. A measured medicine respects the environment and protects the ecosystem.

Slow Medicine recognizes that doing more does not mean doing better.

Respectful



People's values, expectations and desires are different and inviolable

Everyone has the right to be what he/she is, and to express what he/she thinks. A respectful medicine is able to acknowledge and take into consideration the values, preferences and orientations of a person in every moment of life.

Health professionals act with care, balance and empathy.

Slow Medicine recognizes that people's values, expectations and desires are different and inviolable.

Equitable



Appropriate and good quality care for all

An equitable medicine promotes appropriate care, which is both adequate to the person and circumstances, and proven to be effective and acceptable for both patients and health professionals.

An equitable medicine opposes inequality and facilitates access to health and social services. It overcomes the fragmentation of care, and encourages the exchange of information and knowledge among professionals.

Slow Medicine promotes appropriate and good quality care for all.

REALISTIC MEDICINE

CAN WE:

CHANGE OUR STYLE TO SHARED DECISION-MAKING?

BUILD A PERSONALISED APPROACH TO CARE?

REDUCE HARM AND WASTE?

REDUCE UNNECESSARY VARIATION IN PRACTICE AND OUTCOMES?

MANAGE RISK BETTER?

BECOME IMPROVERS AND INNOVATORS?



Putting the Health escalators into reverse



“You can think of the NHS as an escalator, on which we are always pushing people up the levels of intervention and somehow the higher up you go, the more prestigious it becomes and the more you feel you’ve gotten something good out of the health service.”

Prudent Healthcare is all about reversing that escalator. It is about saying the more we can do at a primary care level, the more we can do at the population level and the more we can do at the citizen level, the better service we can provide to our patients.”

Professor Mark Drakeford, former Minister for Health and Social Services

Implementing Value : The Theory

WHAT is Value and **WHY** should we measure it?

Principles:

Improving the health of our population within the resources available....or maximising value.

Research – Theories:

Porter/Kaplan – Value Measurement in Healthcare, Harvard Business School.

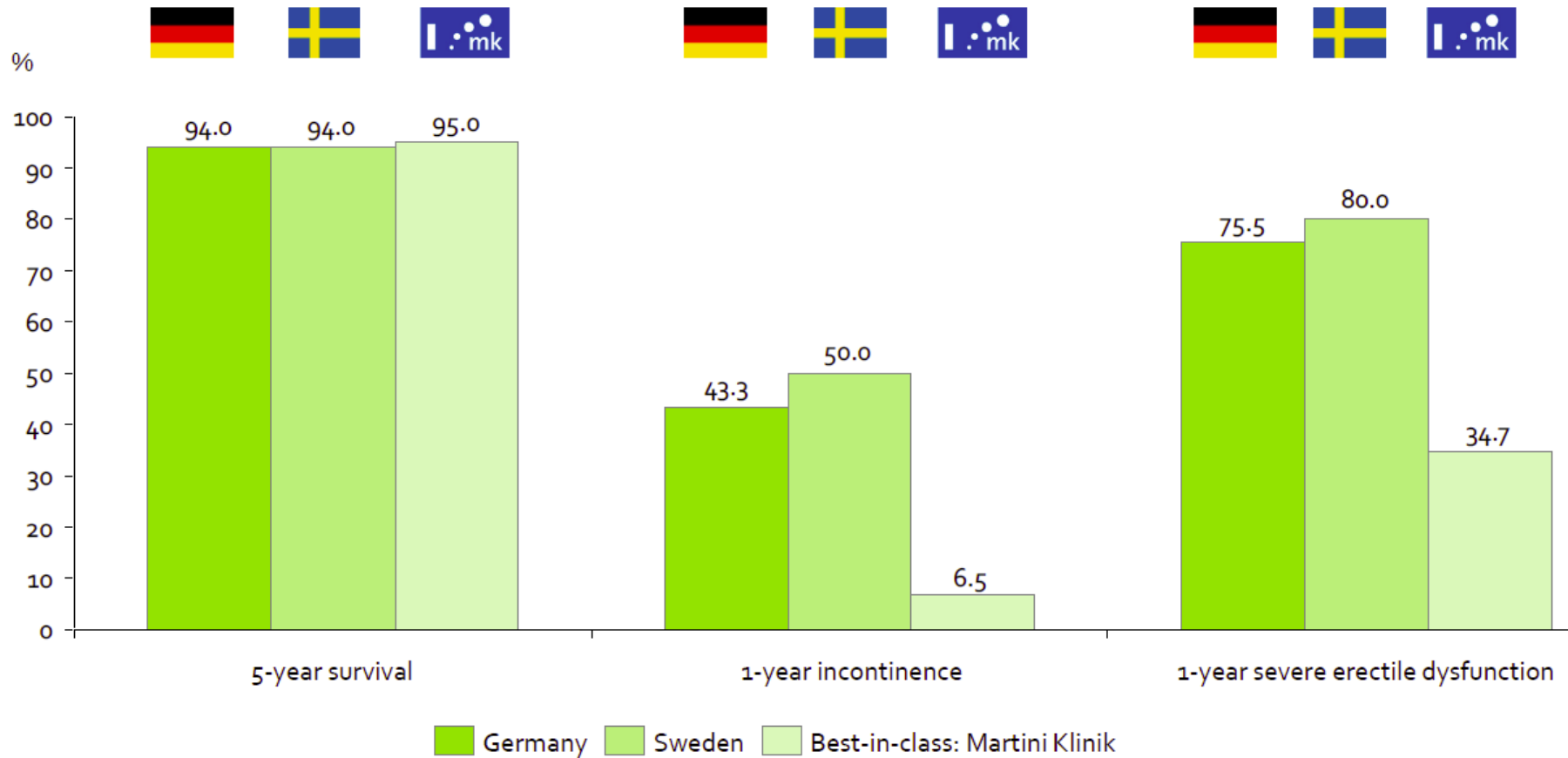
Muir Gray – Better Value Healthcare

Porter: The Value Equation quick reminder...

$$\text{VALUE} = \text{OUTCOMES} / \text{COSTS}$$

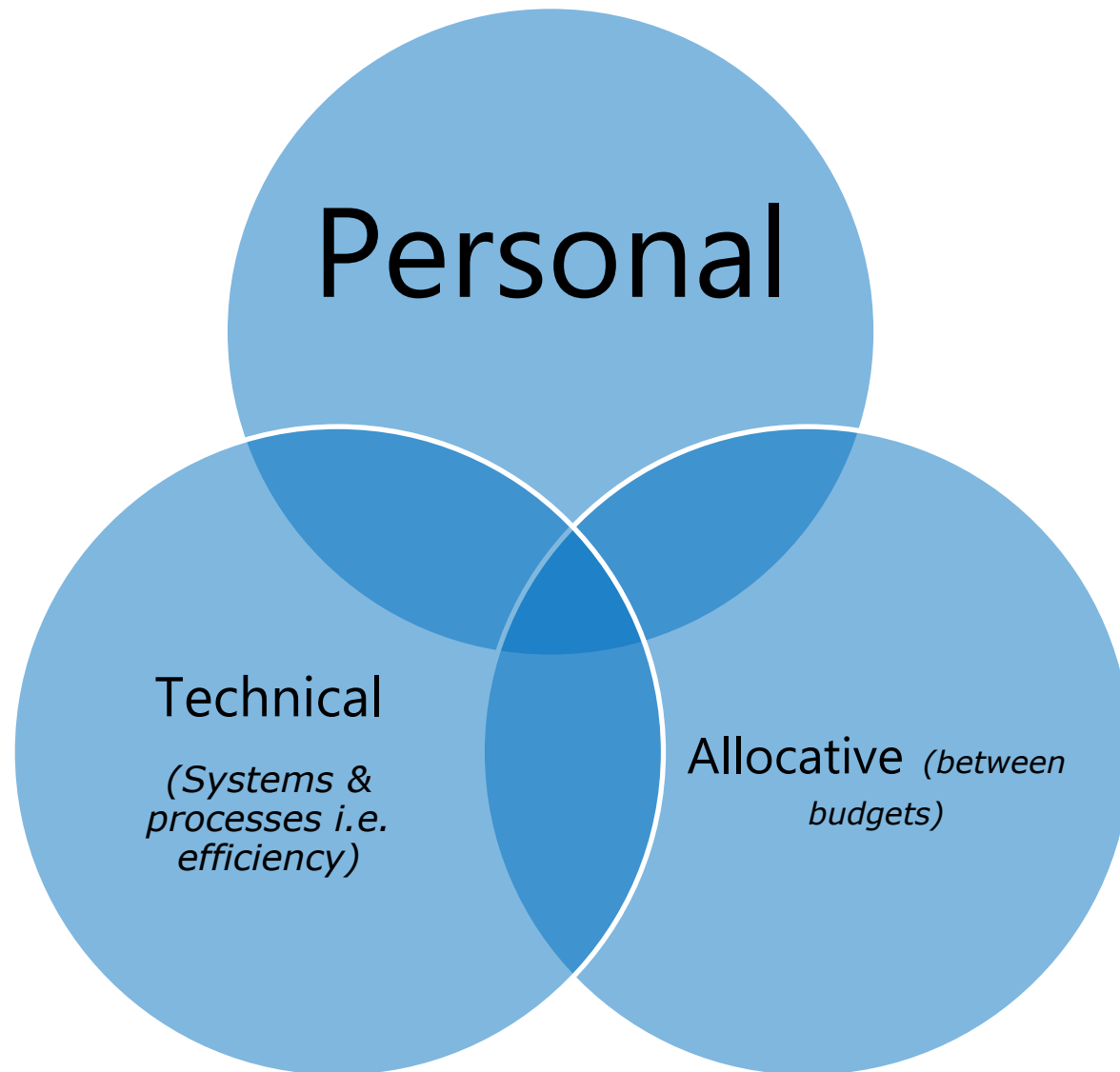
- ✓ Must be measured ***over a cycle of care***
- ✓ Total costs of care ***over the care cycle***, and
- ✓ Outcomes that matter for the patient's condition ***over the care cycle.***

This is why measuring and reporting meaningful outcomes matters



Swedish data rough estimates from graphs; Source: National quality report for the year of diagnosis 2012 from the National Prostate Cancer Register (NPCR) Sweden, Martini Klinik, BARMER GEK Report Krankenhaus 2012, Patient-reported outcomes (EORTC-PSM), 1 year after treatment, 2010

Better value healthcare (*Sir Muir Gray*)



Are we doing the right things?



Clinical guidelines don't always equal clinically sensible.

Value approach supports shared decision making, collecting PROMs in addition to improving efficiency to ensure we know that we are doing the right things for patients.

Opportunity cost and unmet need

NHS
Ipswich and East Suffolk
Clinical Commissioning Group

Paracetamol

Please don't request paracetamol on prescription

Ipswich and East Suffolk Clinical Commissioning Group spent £1m on prescribed paracetamol last year

This is the equivalent of:

	39	MORE community nurses or
	270	MORE hip replacements or
	66	MORE drug treatment courses for breast cancer or
	1,000	MORE drug treatment courses for Alzheimer's or
	1,040	MORE cataract operations



The NHS belongs to you,
use it responsibly.

These are some of the problems with looking at cost alone.

Outcomes measurement should be used to inform our decision making and priorities.

How do we know what is the 'right' thing to do?

We tend to invest in areas where there are targets and process measures such as RTT, and not do this in parallel with the systematic capture of outcomes

Measuring outcomes

- **Why?**
- **What?**
- **How?**
- **So what?**



WHY should we measure outcomes?

- Comparisons with other centres leading to innovation outcome improvement e.g. prostate, cardiac surgery
- Informing shared-decision making in the consultation
- To provide assurance about patient safety
- Informs resource allocation and service design across the whole system, directing the resource to areas of high value i.e. where the impact is greatest for patients.
- Triangulate with variation, costing and other data.
- Importantly patient reported functional outcomes
- Cost cutting without consideration of outcomes may lead to adverse events.
- Outcome data is not all we need, but it is very important .
- Variation – what is appropriate? If patient-led, with good outcome and not hugely increased cost, then it may be appropriate.

WHAT and HOW should we measure?

We are well rehearsed in COST measurement, so we need to start considering outcomes.

Already measure mortality, complication rates, length of stay, RTT BUT What about pain, improved function, treatment goals, overall quality of life: we must focus on what is best for the patient (co-production)

As a minimum use of a tool that measures;

- Clinical outcomes
- Patient Reported Outcomes
- Quality of Life Scores
- Treatment variables
- Patient Experience?

(All risk adjusted to consider case mix and other)

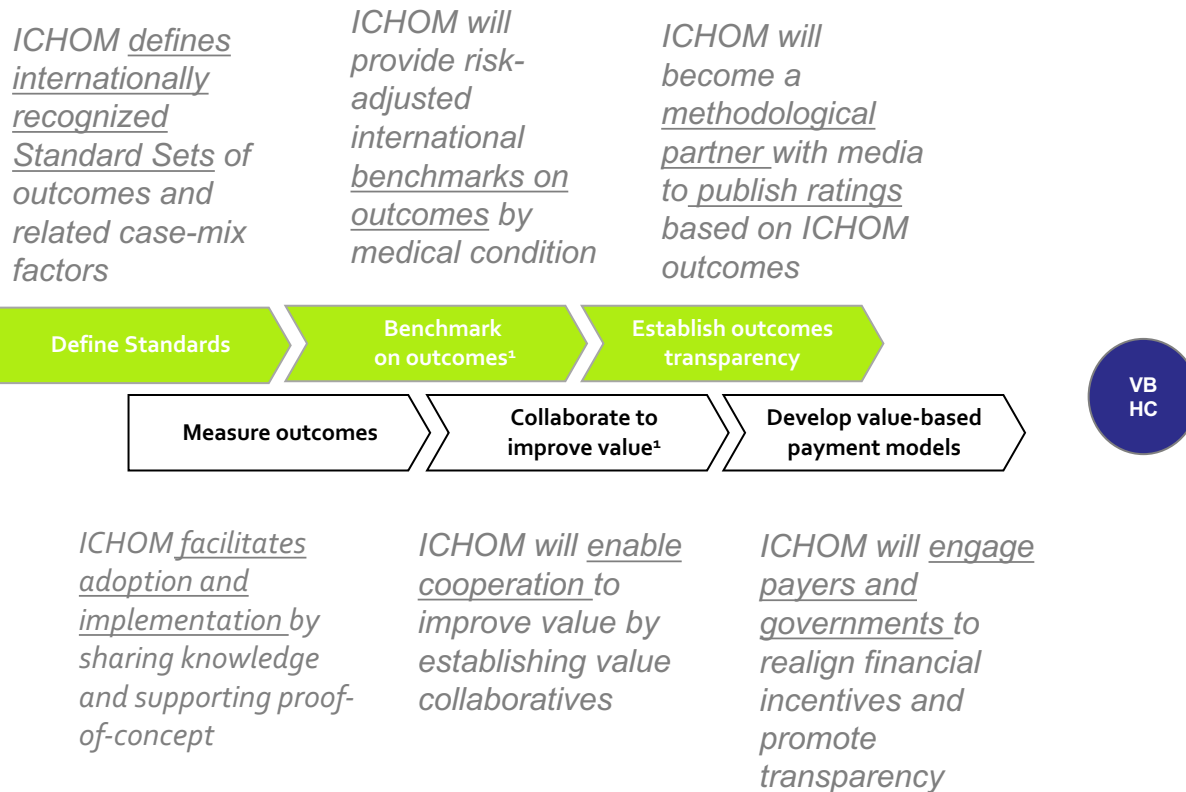
WHAT and HOW should we measure?

Important to understand what matters most to patients
But it's a challenge there is

- Lack of consensus on what and how to measure
- Logistical difficulty, measuring **across whole cycle of care**
- Analysis and benchmarking- local, national, international?
- Myriad of solutions, paper-based or otherwise
- Lack of comparable data, difficult to analyse
- Data sometimes too narrowly focussed e.g. joint registry data; and
- Cost £ and time

International Consortium for Health Outcomes Measurement

ICHOM was formed as a non-profit catalyst to drive the industry towards Value-Based health care



➤ Core mission of ICHOM ✓
➤ Enabler role

Strategic Alliance - ICHOM

Pushing the frontier by developing Value Based Commissioning and Procurement initiatives



NHS Wales

- ICHOM and NHS Wales are working together to conduct a value based procurement pilot, focussing on cataracts.
- This will focus on paying for products based on outcomes.



Region Västra Götaland

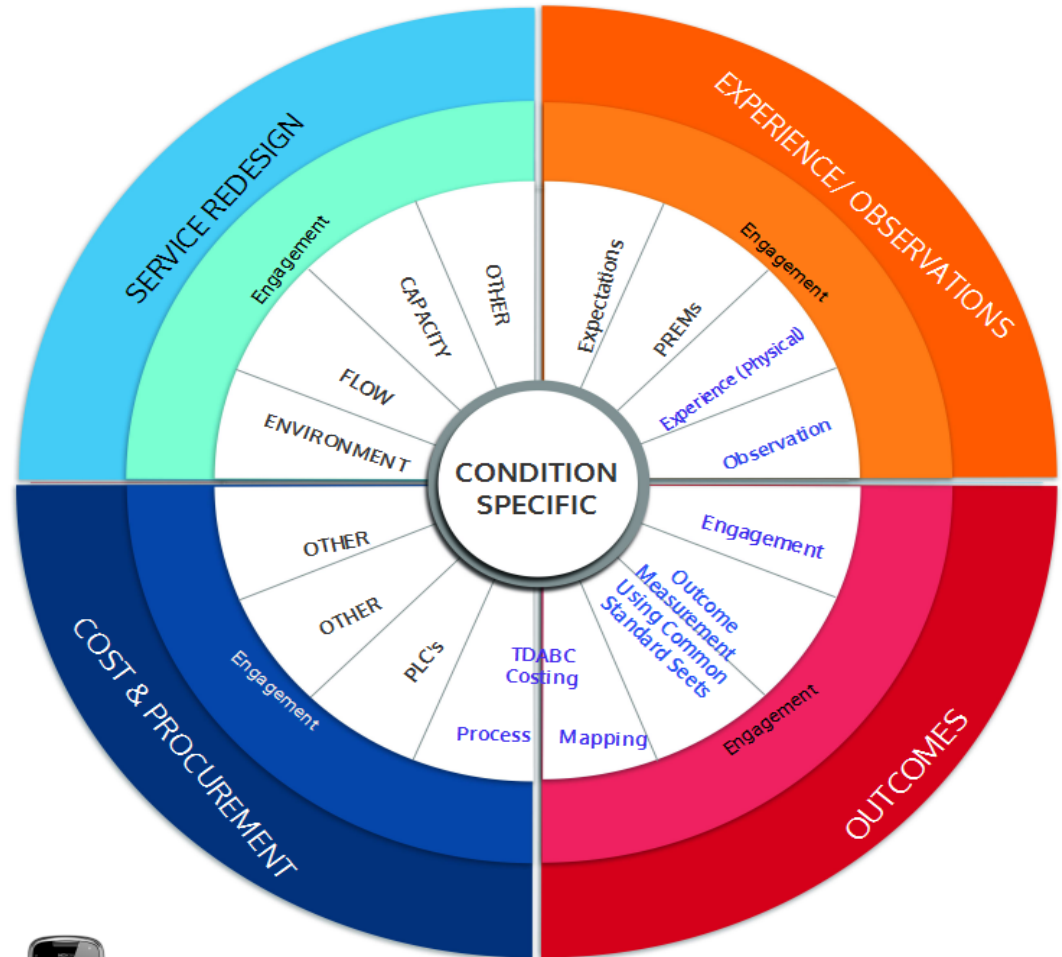
- ICHOM and Region Västra Götaland are working together to conduct a value based commissioning pilot.
- This will focus on commissioning care (for older people) based on outcomes.

VALUE BASED HEALTH CARE

WHAT IS VALUE in ANEURIN BEVAN UHB

As the stewards of precious resource, we should influence the direction of those resource(s) to where it creates the greatest improvements in patient outcomes and their experience of care. Therefore in order to measure value within a system we must systematically capture clinical and patient-reported outcome measures as well as costs.

Implementation Model



SUPPORTED BY NATIONAL IT PLATFORMS/ SYSTEMS

Our Programme

Full Value Assessment

Parkinson's (5 Clinics + COTE)
Dementia
Cataracts
Gastro (Priority for USC)
Pulmonary
Rehabilitation

.....

Costing

Cataracts
Urology
Orthopaedics,
MSK

Outcomes Capture

Hips & Knees (National PCB)
Foot & Ankle (National PCB)
Stroke (National SIG)
Neuro Conditions (National NCIG)
Primary Care Mental Health

And growing

The Case Studies



Example 1: Implementing Outcomes Capture in Parkinson's Disease (*Personal Value*)

Aim:

Test use of standard set ICHOM by Patient & Clinician / Understand IT solutions/ challenges NOT linked to cost at this stage

Testing methodologies and approach, i.e. process mapping

- Patients entering their patient reported outcomes via tablet form in a clinic environment

- Clinicians reviewing 'the things that matter to patients' in clinic, focusing the consultation

Findings/Observations:

1. Clinical Engagement is key to its success
2. IT Support fundamental
3. ICHOM expertise – required first time
4. Dedicated capacity to support the work

- 1.The Clinical Environment
- 2.The Clinic Flow
- 3.Staffing
- 4.Relationships and Awareness

AT THIS STAGE THE PROGRAMME HAS

Highlighted the increasing importance of close collaboration between clinicians, managers, finance and fundamentally the patients/carers/relatives in designing and delivering healthcare in such a way that patients have the best possible experience and outcomes with a high degree of VALUE in the system.

What the patients told us: What matters?

We asked: Please tell us what aspect of outcome information is important to you and/or outcome information could have helped you when you were first diagnosed?

Having real time info and better info about their likely trajectory really important

It is our right to have access to this information!

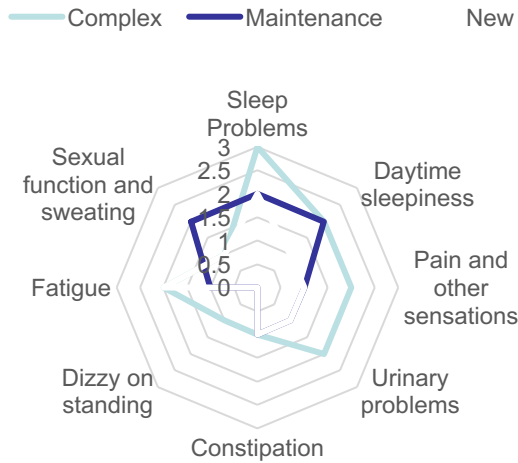
Enthusiastic about statistical information that would give an idea of the progression of disease and effect of medication.

Everyday life experiences should be factored into their clinic visits

capturing outcomes in one point in time was all well and good, but really he'd like an 'app' that would ask him throughout so that he could feed in his thoughts and feelings as things were happening.

What the data tells us: Initial views?

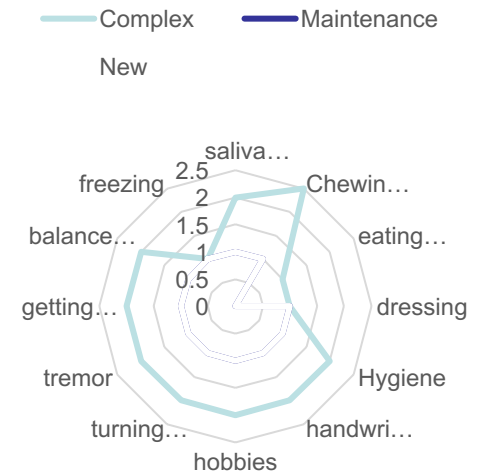
Non motor functions against categories



Non motor Averages for categories

	Complex	Maintenance	New
Sleep Problems	3	2	2
Daytime sleepiness	2	2	1
Pain and other sensations	2	1	1
Urinary problems	2	1	1
Constipation	1	1	1
Dizzy on standing	1	0	0
Fatigue	2	1	2
Sexual function and sweating	1	2	1

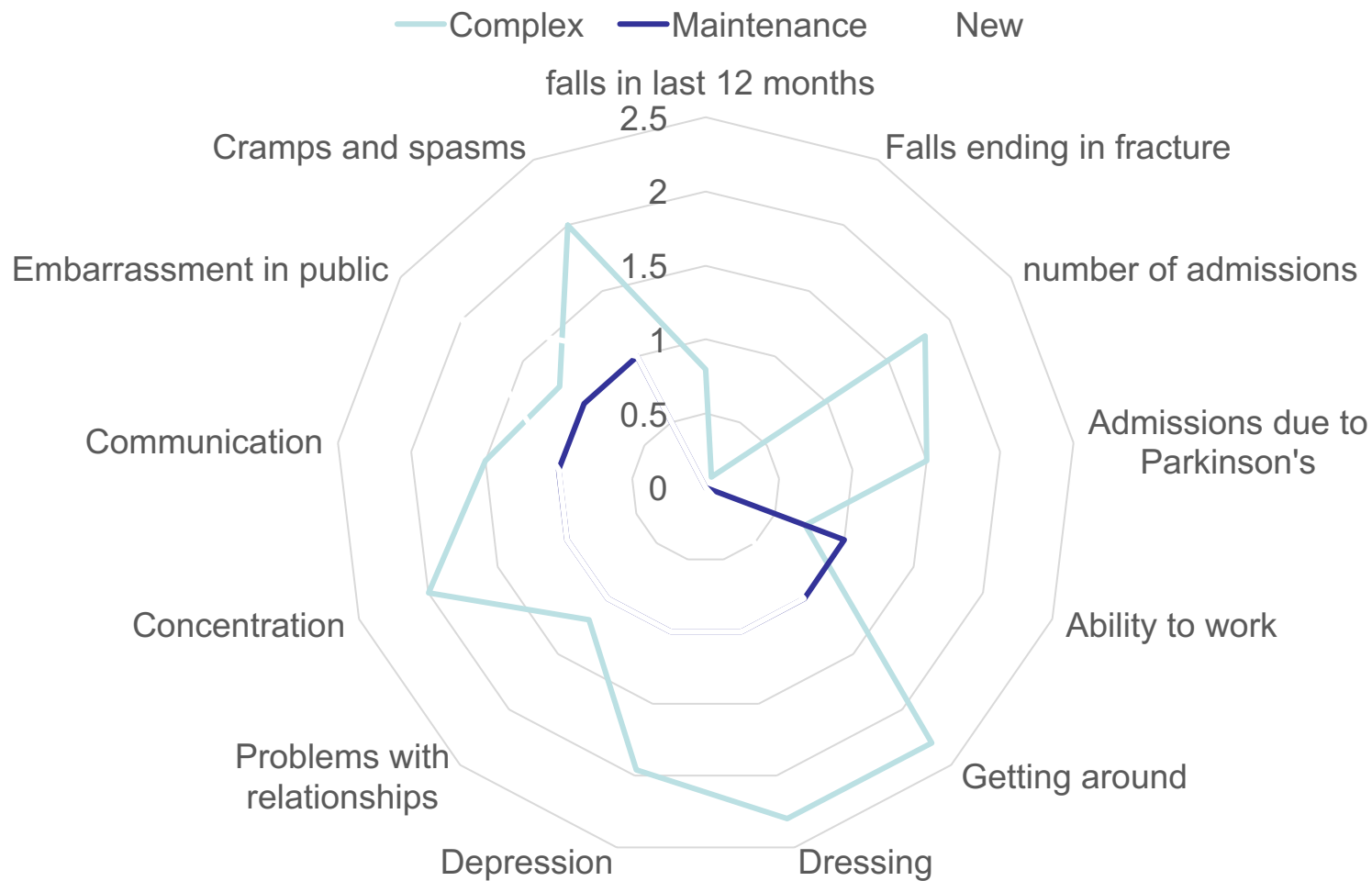
Motor function averages against categories



Motor function Averages for categories

	Complex	Maintenance	New
Speech			
saliva and drooling	2	1	1
Chewing and swallowing	2.5	1	1
eating tasks	1	0	0
dressing	1	1	1
Hygiene	2	1	1
handwriting	2	1	1
hobbies	2	1	1
turning in bed	2	1	1
tremor	2	1	1
getting out of a deep chair or car seat	2	1	1
balance and walking	2	1	1
freezing	1	1	1

Quality of life against Categories

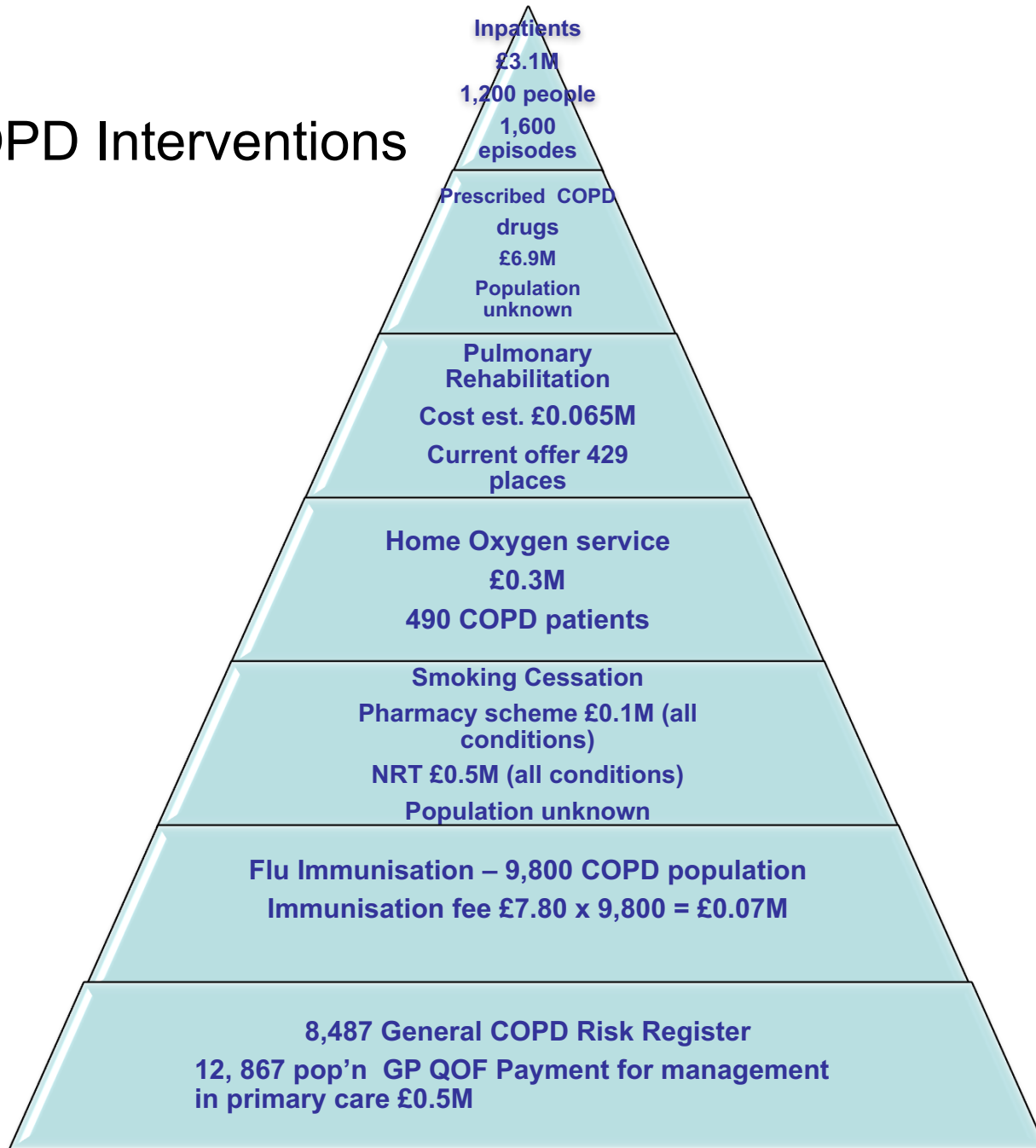


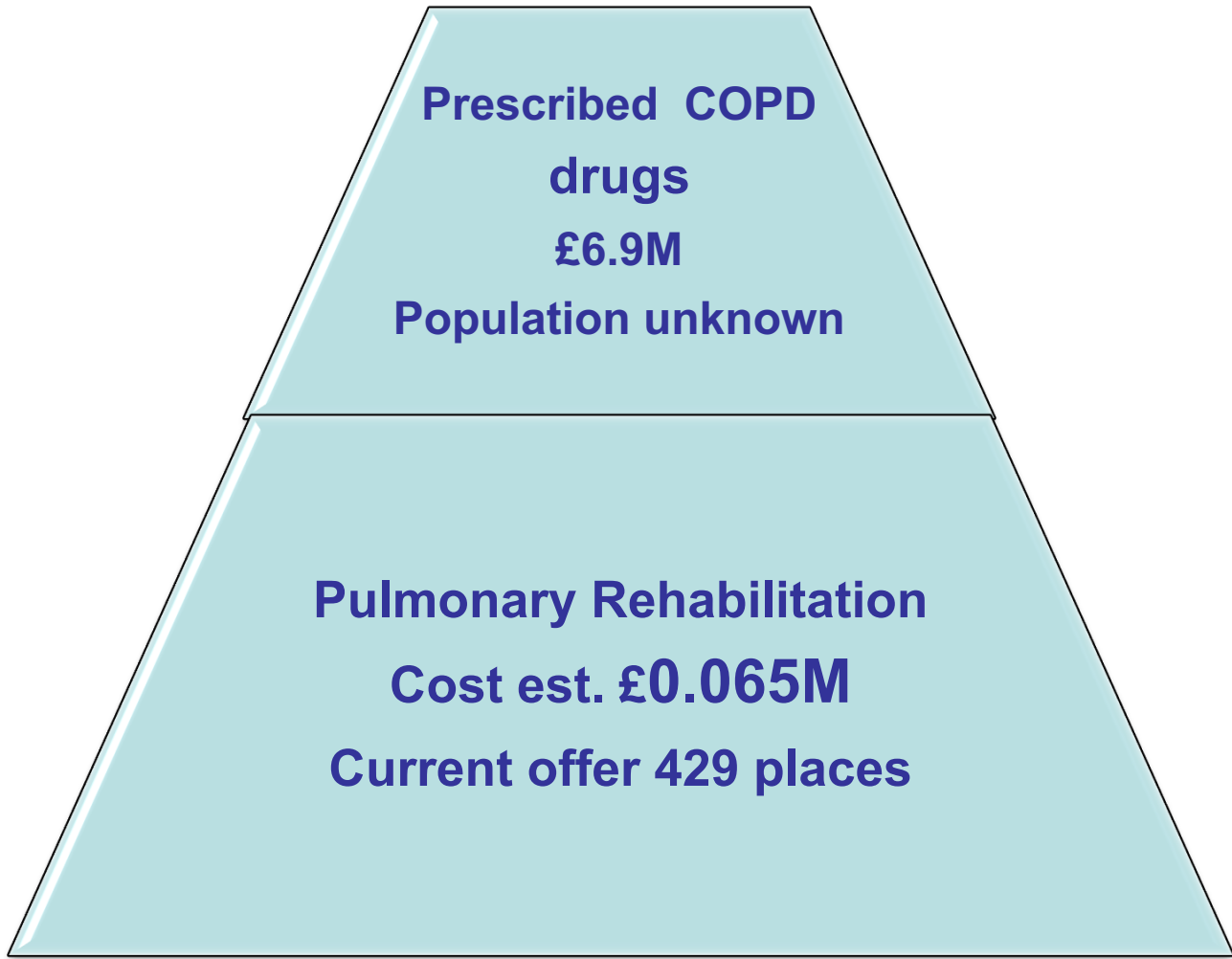


Example 2:

Implementing
Allocative/Technical value in
chronic obstructive pulmonary
disease.
(COPD)

COPD Interventions





**Prescribed COPD
drugs
£6.9M
Population unknown**

**Pulmonary Rehabilitation
Cost est. £0.065M
Current offer 429 places**

Respiratory Care :

Prescribing vs Rehabilitation

- A clinical led collaboration of primary care, secondary care, pharmacy, finance and patient representatives.
- Rationalise inhaler prescribing which was not of benefit to COPD patients.
 - Savings for 2015/6 were €230K recurrently (12k patient population) and work is expanding.
 - Scaled to UK >€30m pa
- Pulmonary Rehabilitation is a highly cost effective intervention.
 - Estimates of savings range from £890 per person per course (Griffith et al: Thorax 2001) to £1835 per person per year (Chakravorti et al : ISRN Pulmonology 2011).
 - It is substantially below the NICE threshold for cost-effectiveness, at only £2,000 - £8,000 per QALY.

Disinvestment in low value activity to fund high value reinvestment

- Improving outcomes and reducing costs simultaneously.
- Providing equitable timely access by doubling the number of PR places
- improving quality of life
- Reduce hospital admissions due to exacerbations.
- Economic benefit as well as the personal value



Surely a simple no-brainer?



Innovation:

Fresh thinking which
creates value



Be clear what we want to achieve:

- Measurable impact on healthcare value
- Scalable
- Affordable
- Adoptable



Fresh thinking which **creates value**

- ... and can show that it has created value
- ... in ways that others will understand and believe
- ... throughout Wales
- ... and beyond

Real World Impact

Beacon Digital - Proactive Care System

- Telehealth Enabled Medicines Management for Care Home Residents
- Formal Evaluation by Cardiff University
 - https://www.cardiff.ac.uk/_data/assets/pdf_file/0009/193752/CUEvaluation.pdf
- Improved Quality and Safety
 - Eliminated 21 out of 23 types of errors
- Reduced Waste
 - 55% returned & 22% overstock
 - €3.75million to €5.4million per annum
- Adopted for over 9000 residents
- 2016 HSJ Award for Improving Care with Technology
- 2016 Guardian Public Service Award runner up

