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Rehabilitation Framework: Taking a Value-Based Approach to Measuring Outcomes

Lessons from SBUHB Podiatry and Orthotics Life and Limb Crisis Prevention

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Clinical Lead

Swansea Bay University Health Board

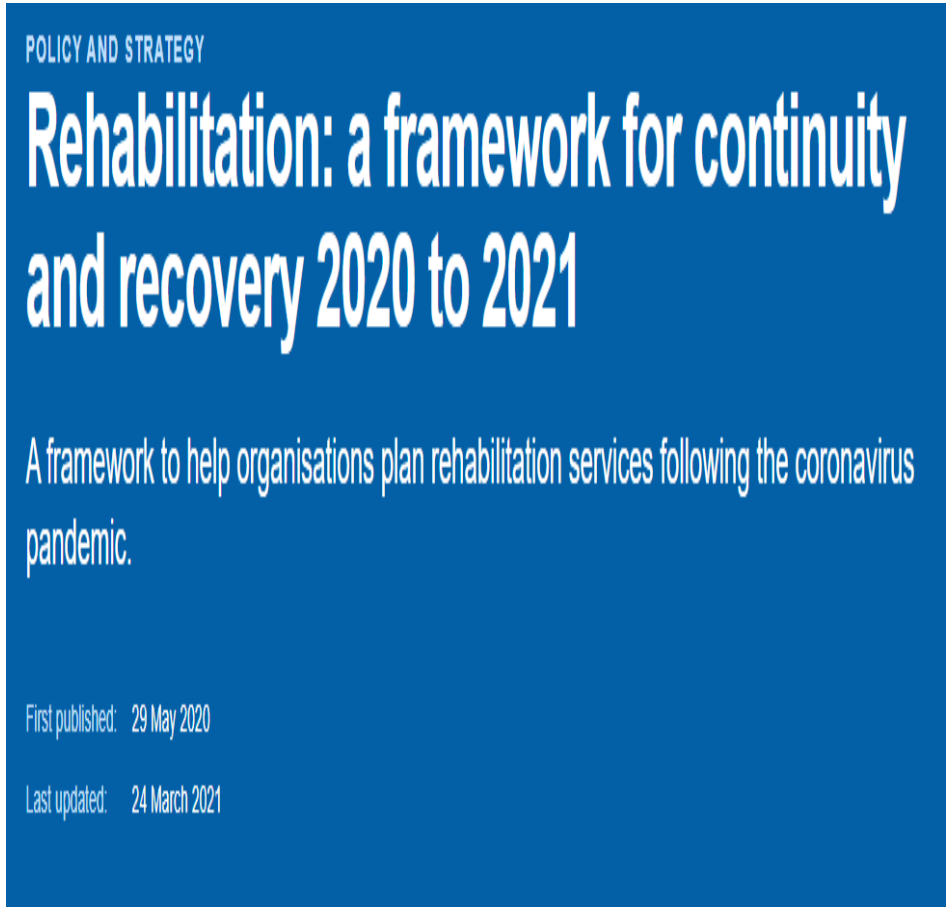
Podiatry & Orthotics Service

THE WELSH GOVERNMENT'S AWARD FOR PRUDENT HEALTHCARE

Llywodraeth Cymru
Welsh Government

Our Story So Far…….

1. Embedding *MECC*
2. *Behavioural Change* Measurement
3. *Root Cause Analysis*
4. *Co-Production* and *Self Management Support* Training
5. *Patient Activation* Training
6. Implementation of *Pre-Consultation Questionnaires*
7. Importance and Confidence Scaling
8. All Wales *Putting Feet First* Amendment
9. All Wales *Podiatry Taxonomy* Amendment
10. All Wales *Patient Activation* Measures



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1.
Embedding MECC

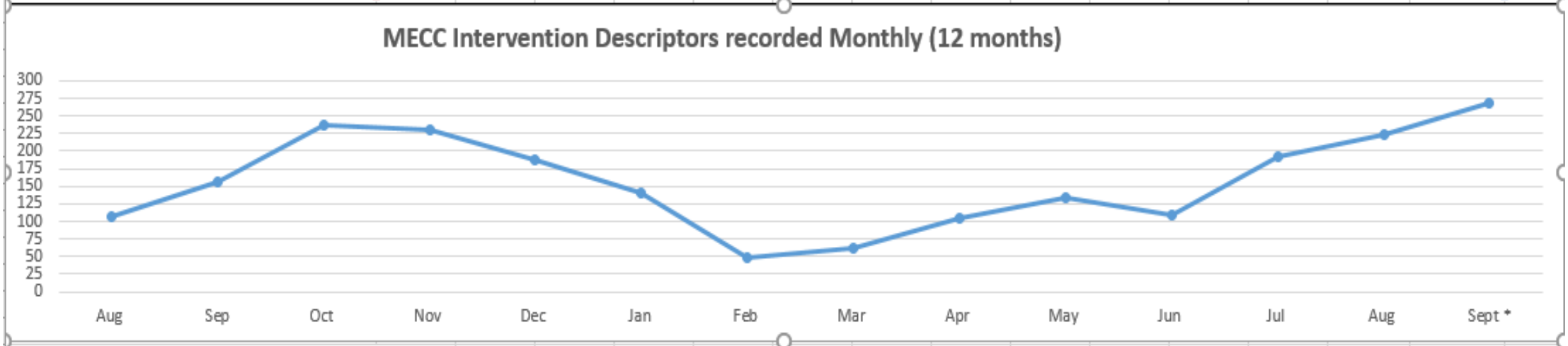
and

2. Behavioural Change Measurement

MECC INTERVENTION DESCRIPTORS 12 months

Descriptors recorded monthly

Treatment	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept *	Total
MECC Behavioural change-Diet and exercise	18	19	13	21	12	1	1	7	8	9	4	23	5	6	**147**
MECC Behavioural change-Immunisations	4	-	21	41	1	2	-	-	-	-	1	3	10	6	**89**
MECC Behavioural change-Smoking ceased	13	4	10	8	3	4	1	1	11	4	1	7	3	3	**73**
MECC Discussion-Diet and exercise	36	65	38	42	42	35	12	24	48	57	73	99	104	53	**728**
MECC Discussion-Immunisation	13	19	96	65	84	42	10	11	5	14	1	21	47	168	**596**
MECC Discussion-Smoking	19	40	30	34	37	42	23	15	19	39	19	23	21	19	**380**
MECC Review-Diet and exercise	2	7	-	10	3	9	-	4	11	7	8	8	13	3	**85**
MECC Review-Immunisation	-	-	27	8	5	3	-	-	-	1	-	2	21	10	**77**
MECC Review-Smoking	2	2	3	2	1	3	1	1	2	2	2	6	-	1	**28**
TOTAL	**107**	**156**	**238**	**231**	**188**	**141**	**48**	**63**	**104**	**133**	**109**	**192**	**224**	**269**	2203



NB. New TAT issued July with MECC prompts

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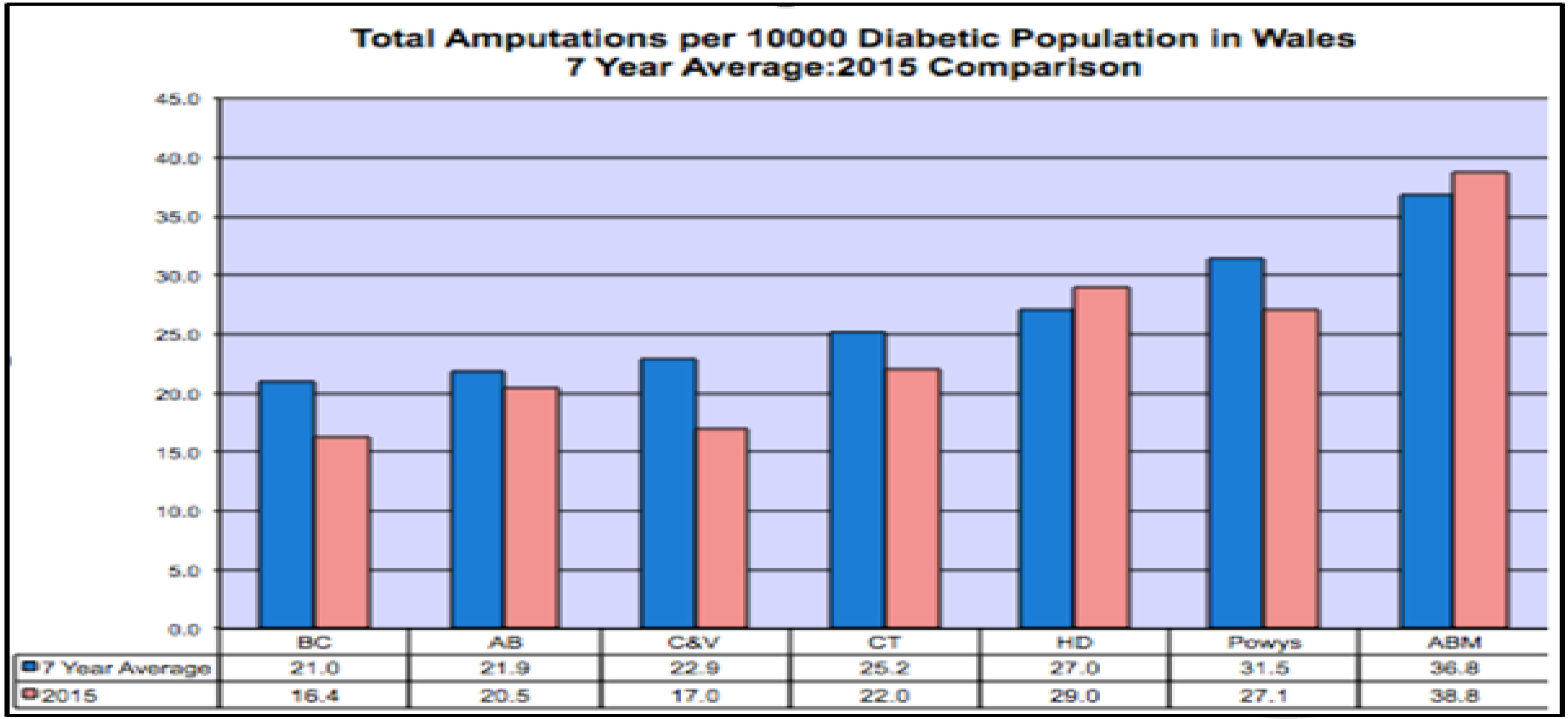
3.
Root Cause Analysis

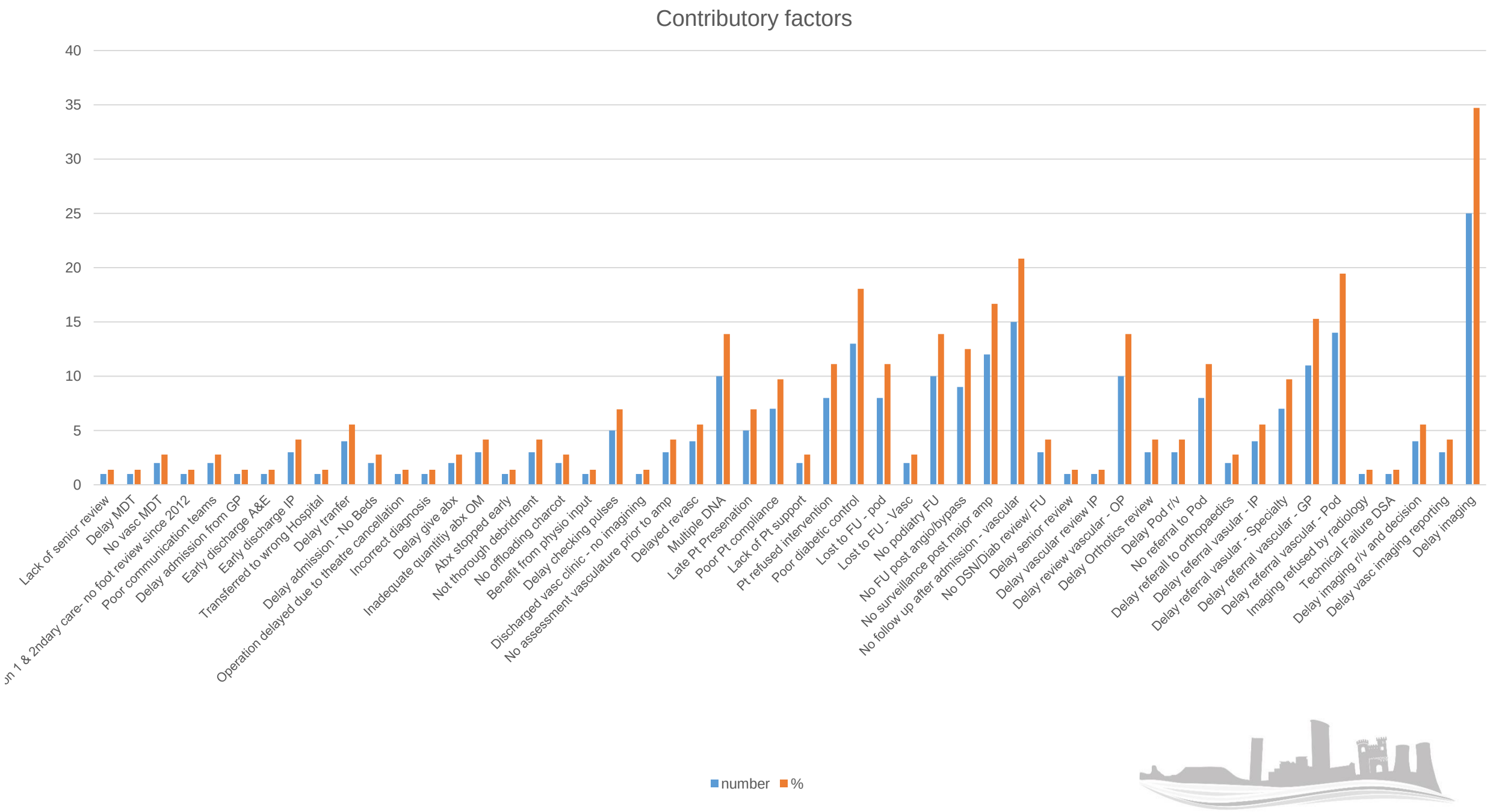
Lower Limb Amputations 2015

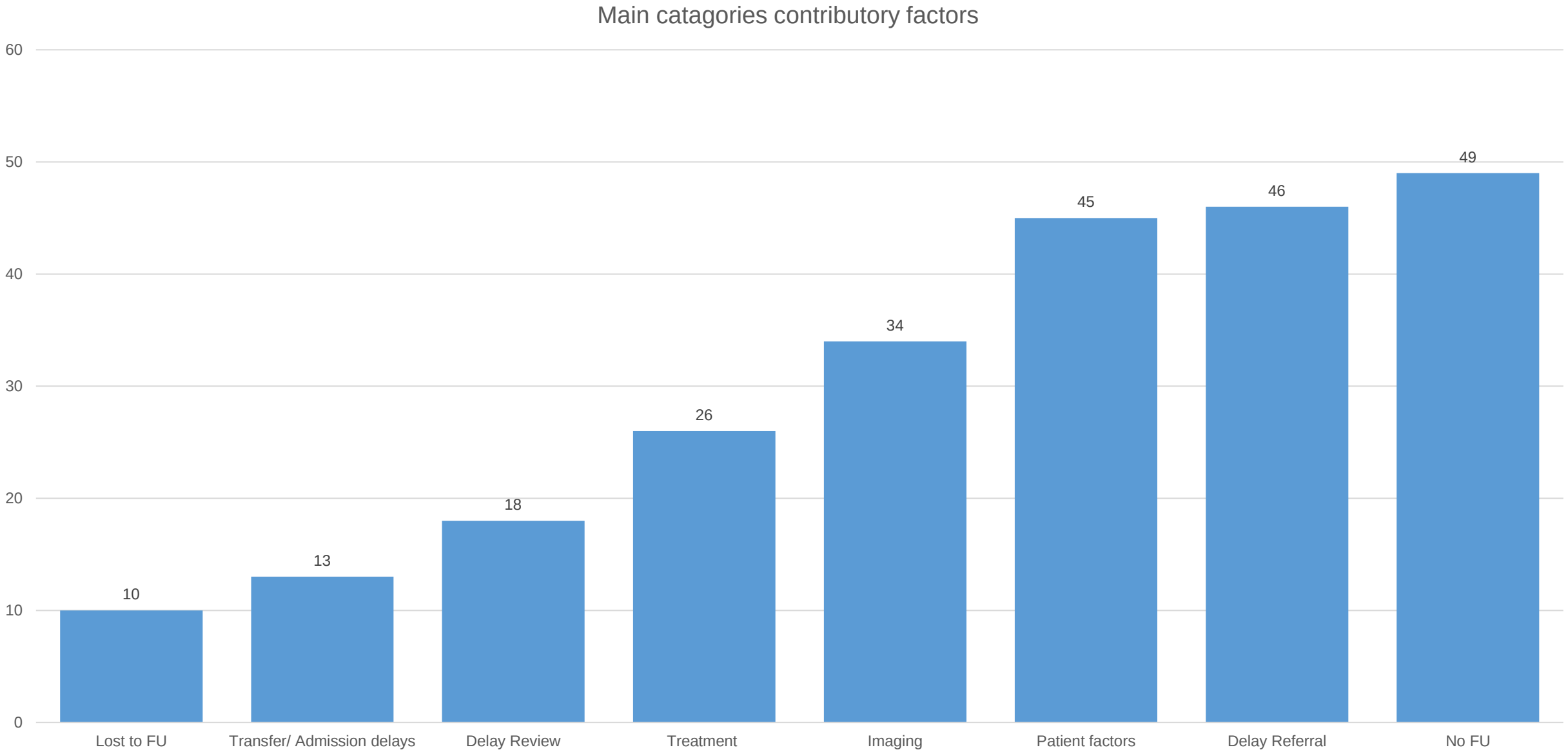
"Increased population need"

Historic Position across HB's

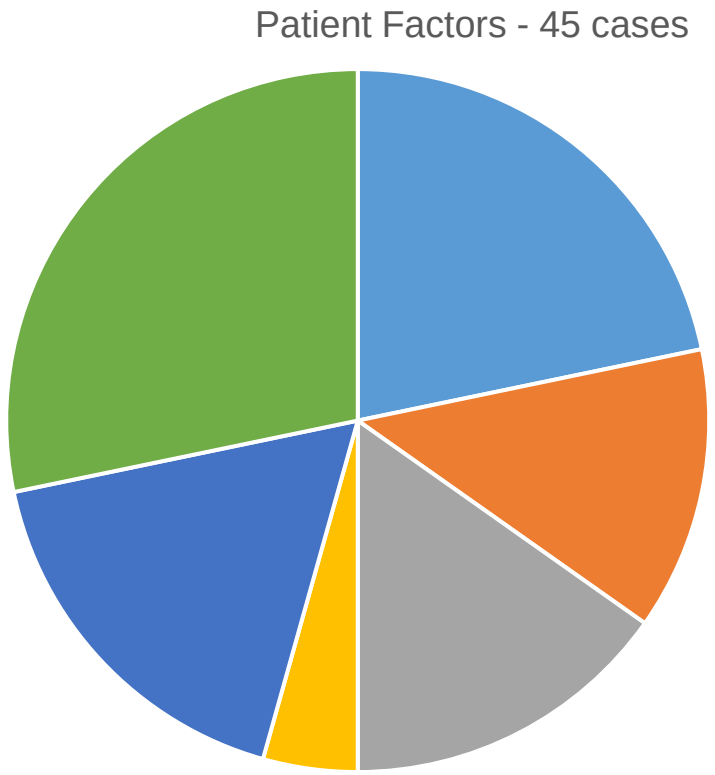


	BC	AB	C&V	CT	HD	Powys	ABM
7 Year Average	21.0	21.9	22.9	25.2	27.0	31.5	36.8
2015	16.4	20.5	17.0	22.0	29.0	27.1	38.8


Contributory factors
40
35
30
25
20
15
10
5
0
Lack of senior review
Delay MDT
No vasc MDT
Poor communication between 1 & 2ndary care- no foot review since 2012
Delay admission from GP
Early discharge A&E
Early discharge IP
Transferred to wrong Hospital
Delay tranfer
Delay admission - No Beds
Operation delayed due to theatre cancellation
Incorrect diagnosis
Delay give abx
Inadequate quantitiy abx OM
Abx stopped early
Not thorough debridment
No offloading charcot
Benefit from physio input
Delay checking pulses
Discharged vasc clinic - no imagining
No assessment vasculature prior to amp
Delayed revasc
Multiple DNA
Late Pt Presenation
Poor Pt compliance
Lack of Pt support
Pt refused intervention
Poor diabetic control
Lost to FU - pod
Lost to FU - Vasc
No podiatry FU
No FU post angio/bypass
No surveillance post major amp
No follow up after admission - vascular
No DSN/Diab review/ FU
Delay senior review
Delay vascular review IP
Delay review vascular - OP
Delay Orthotics review
Delay Pod r/v
No referral to Pod
Delay referall to orthopaedics
Delay referral vasular - IP
Delay referral vasular - Specialty
Delay referral vascular - GP
Delay referral vascular - Pod
Imaging refused by radiology
Technical Failure DSA
Delay imaging r/v and decision
Delay vasc imaging reporting
Delay imaging
number
%


Main catagories contributory factors
60
50
40
30
20
10
0
10
13
18
26
34
45
46
49
Lost to FU
Transfer/ Admission delays
Delay Review
Treatment
Imaging
Patient factors
Delay Referral
No FU

Impact of Low Patient Activation



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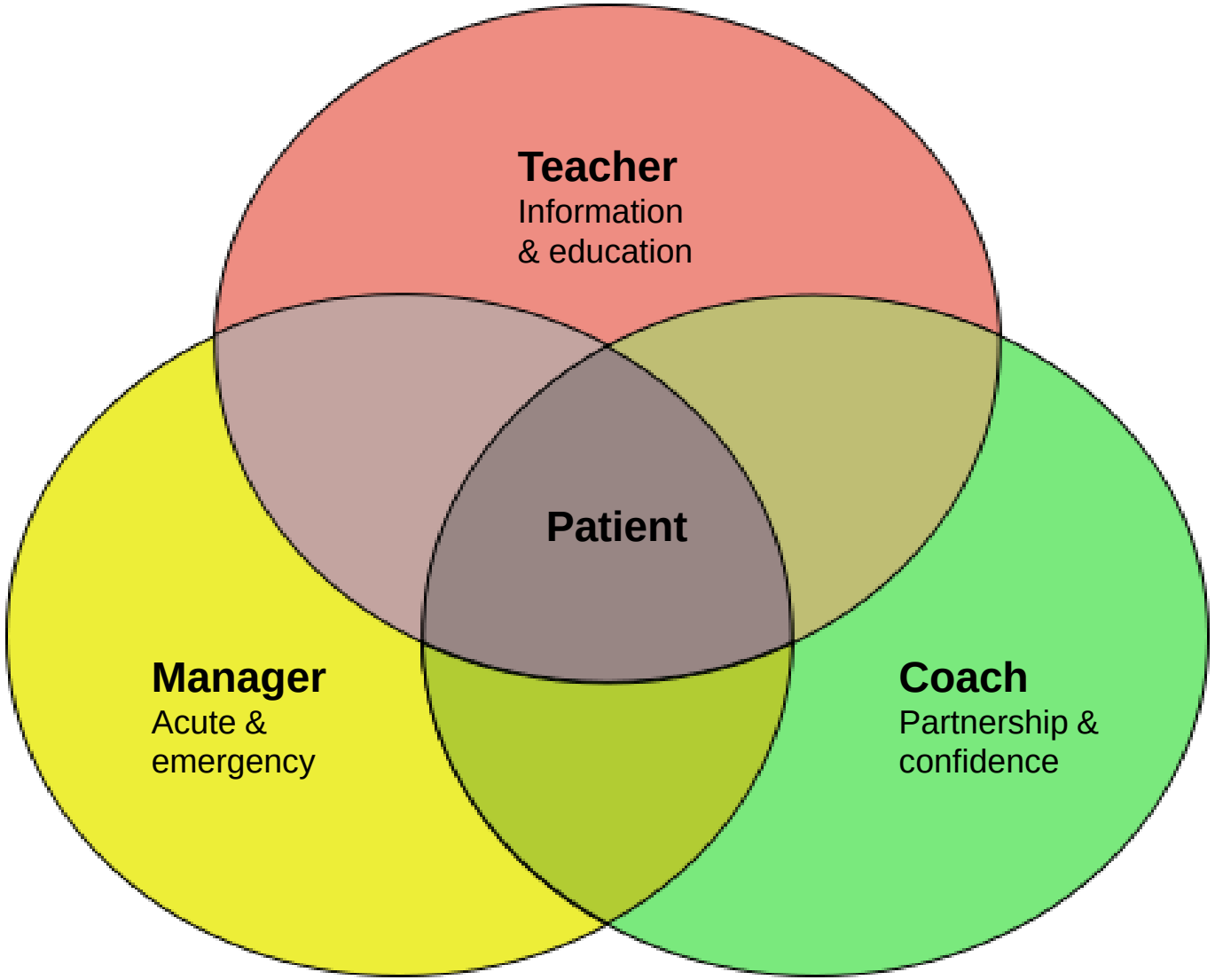
Training

4. Co-Production and Self Management Support

and

5. Patient Activation

Self Management Support

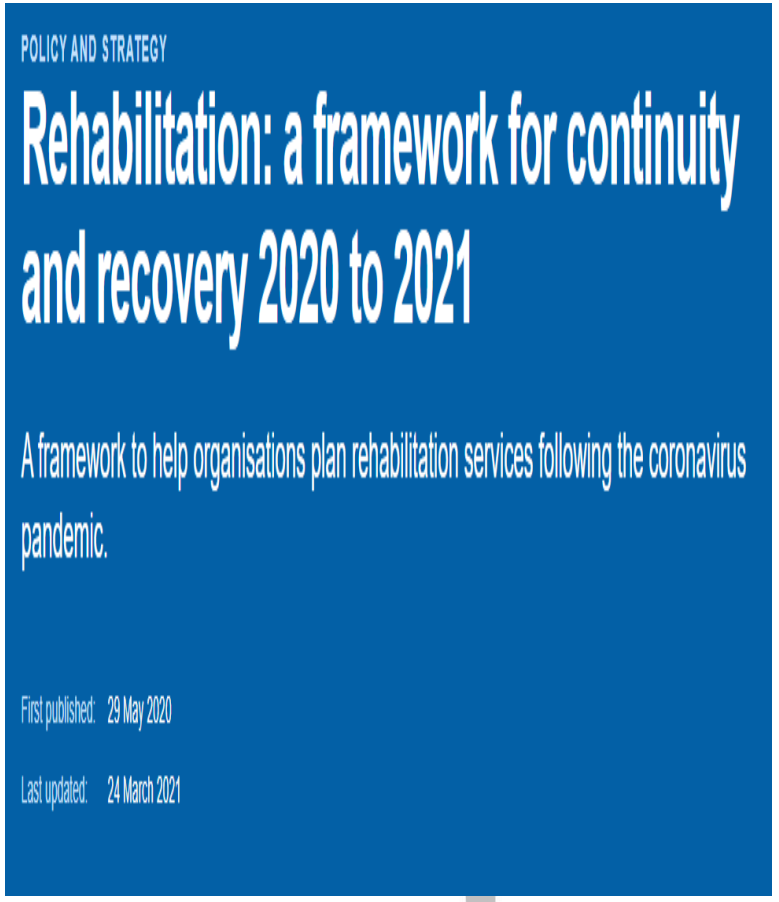


REHABILITATION- CO-PRODUCTION AND ACTIVATION

"…….A workforce-wide culture of empowering people to be equal partners in maximising their own recovery and independence will be essential.

In line with A Healthier Wales, promoting self-management and co-production of care will enable people to take more responsibility for their own health and wellbeing.

Advances in technology and smarter ways of working must be embedded to support the increased demand and improve access, outcomes and experience……."



Building Resources for Rehabilitation through Activation

Activation is changeable and describes the *knowledge*, *skills*, *confidence* and *importance* which relate to an individual's ability to self-determine and engage in positive behaviours.

Hibbard and Gilbert's (2014) model for patient activation demonstrates high activation levels are commensurate with-

- Positive behaviours
- Improved satisfaction
- Improved outcomes: preventive, restorative, supportive, palliative

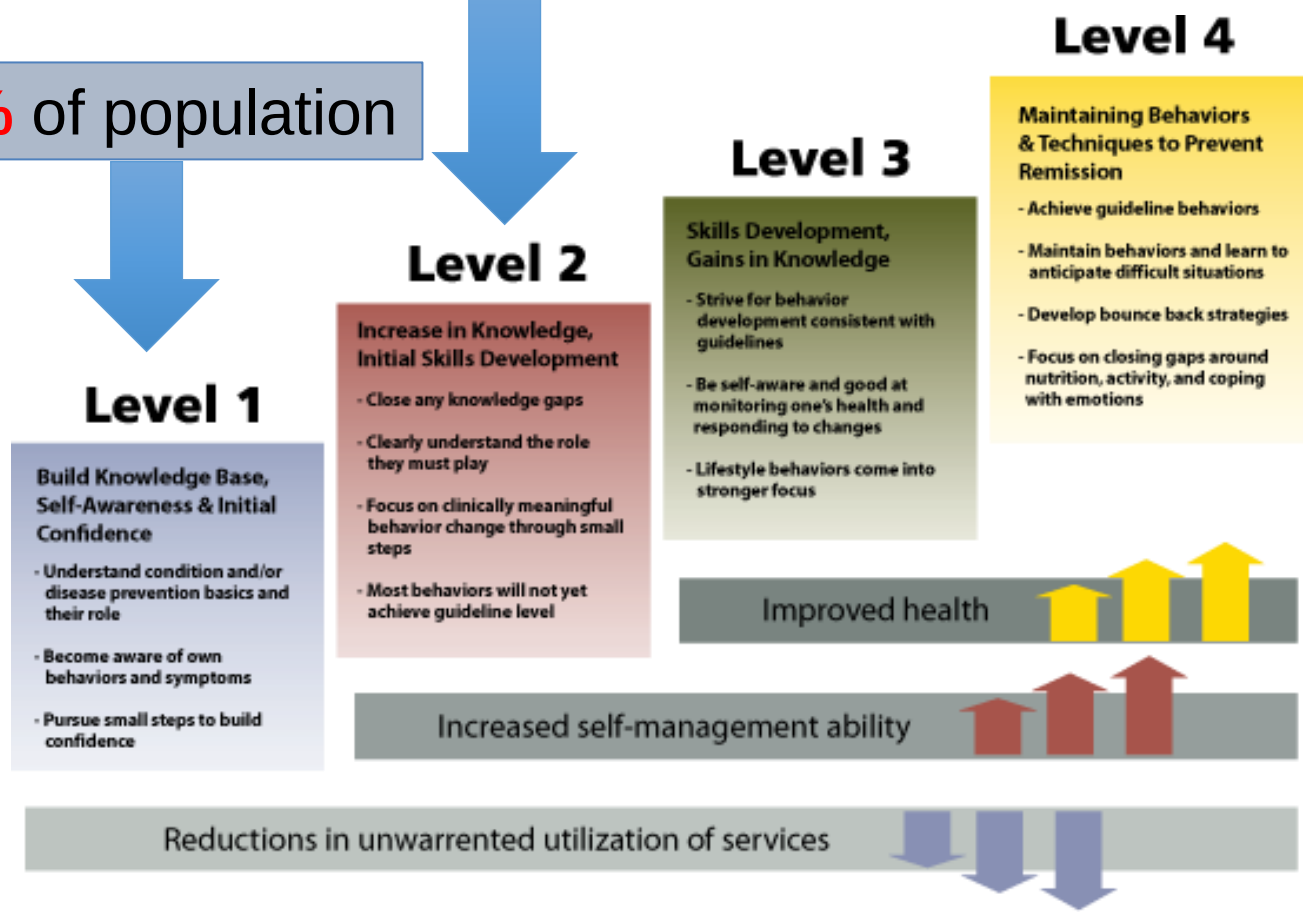
Conversely, low activation has been shown to result in

- High levels of dependency
- Reluctance to seek help
- Continued failings
- Increased fear or apathy
- Poor outcomes

ACTIVATION PREDICTS HEALTH/REHABILITATION OUTCOMES

14% of population

7% of population



LOW

"……Economic impact; loss of usual societal participation and loss of family and friends, alongside the impact for frontline health and social care workers….."

HIGH

"…..Rehabilitation is an investment, with cost benefits for both the individuals and society:

- *Avoid costly hospitalisation*
- *Reduce hospital length of stay*
- *Prevent re-admissions.*
- *Reduced reliance on long-term health and social care services*
- *Enables people to live more independently and provides wider societal benefits"*

Co-production- duty not choice

Paternalism is a hazard to health-

"Doing things to people instead of with them can be profoundly disempowering. It encourages patients to believe that professionals have all the answers and that they themselves lack relevant knowledge and skills, and hence have no legitimate role to play in decisions about their healthcare. Paternalism breeds dependency, encourages passivity and undermines people's capacity to look after themselves. It may appear benign, comfortable and reassuring, but it is a hazard to health."

Engaging Patients in Healthcare- per Angela Coulter 2011 p.2

Duty to Support Patient Activation and Informed Decision Making

Documenting poor patient engagement opens a further duty to support patients to overcome ambivalence

"***You must encourage and help service users, where appropriate, to maintain their own health and well-being, and support them so they can make informed decisions***"

HCPC Standards of conduct, performance and ethics

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6. Implementation of Pre-Consultation Questionnaires

shared decision making, meaningful goal setting and patient centred management planning

Pre Consultation Questionnaires-Staff feedback

- ***"having the information from the patient as we introduce ourselves to one another really helps to engage and empower the patient"***
- ***"believe it or not lots of patients are taken by surprise and feel strange being asked and not told"***
- ***"the questionnaire helps us to focus on what is important to the patient and not just on what we feel is important for the patient"***
- ***"reflecting back what the patient has written shows the patient that we are actively listening to them"***
- ***"The questionnaire gives clarity to a complex list of needs and wants"***
- ***"I feel like I have more time to get to the bottom of what may be holding a patient back rather than making assumptions"***

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7.
Scaling of Importance and Confidence

Longitudinal analysis of patient reported I & C scores

Activation levels informing Mgt Plan

	Importance	Confidence	Problem Solve
Beginning Level 1 Pre-contemplation	Low (0-4)	Low(0-4)	Low Explore ambivalence
Finding a way Level 2 Contemplation	Mod (5-7) –High (7+)	Moderate(5-7)	Moderate Small supported achievable goal setting
Travelling Level 3 Action	High (7+)	High (7+) *for some*	Moderate to High Info, Edn, Signposting & ref specialist services
Staying on track Level 4 Maintenance	High(7+)	High(7+)	High Increasing resilience & problem solving skills

Hibbard J, Greene J, Tusler M (2009). 'Improving the outcomes of disease management by tailoring care to the patient's level of activation'. *American Journal of Managed Care*, vol 15, no 6, pp 353–60. Available at: http://healthforum.brandeis.edu/aboutforant-pages/univ-oregon-grant.html (accessed on 23 March 2014).

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8.
All Wales Putting Feet First Amendment

Embedding Activation in the calculation of risk for patient centred management planning

PUTTING FEET FIRST

Annual Foot Review for everyone with diabetes over 12 years old

How to do an annual foot check:

- Remove shoes and socks/ stockings
- Test foot sensations using 10g monofilament or vibration with a tuning fork
- Palpate foot pulses
- Inspect for any deformity
- Inspect for significant callus
- Check for signs of ulceration
- Ask about any previous ulceration
- Inspect footwear
- Ask about any pain
- Tell patient how to look after their feet and provide written information
- Tell patient their risk status and what it means. Explain what to look out for and provide emergency contact numbers.

ADVISE THE PATIENT TO:

- Check their feet every day
- Be aware of loss of sensation
- Look for changes in the shape of their foot
- Not use corn removing plasters or blades
- Know how to look after their toenails
- Wear shoes that fit properly
- Maintain good blood glucose control
- Attend their annual foot review

IDENTIFICATION OF FOOT RISK STATUS AND THE ACTION TO TAKE

LEVEL OF RISK		ACTION
ACTIVE	• Ulceration or • spreading infection or • critical limb ischaemia (severe peripheral arterial disease) or • gangrene or • suspicion of acute Charcot foot or an unexplained hot, red, swollen foot with or without pain.	• Rapid referral (within one working day) to the Foot Protection Service (FPS) or the multidisciplinary foot team, for triage within one further working day. • Assess feet and lower limbs, then agree a tailored treatment plan. • Provide written and verbal education with emergency contact numbers. • Refer for special intervention if/ when required. • Liaise with other healthcare professionals eg GP as necessary.
HIGH	• Previous ulceration or • previous amputation or • on renal replacement therapy (dialysis or transplant) or • neuropathy (loss of sensation) and lower limb peripheral arterial disease together or • neuropathy (loss of sensation) in combination with callus and/ or deformity* or • lower limb peripheral arterial disease in combination with callus and/or deformity*.	• Refer to a specialist podiatrist or member of the foot protection service (FPS) and request an assessment within 2–4 weeks. • Thereafter they should be assessed every 1–2 weeks if there is immediate concern or every 1–2 months if there is no immediate concern. This is in addition to their annual assessment. Both assessments should be carried out by a specialist podiatrist or a member of the FPS. • Assess feet and lower limbs, then agree a tailored treatment plan. • Provide written and verbal education with emergency contact numbers. • Refer for special intervention if/ when required. • Liaise with other healthcare professionals eg GP as necessary.
MODERATE	• Deformity* or • neuropathy (loss of sensation) or • lower limb peripheral arterial disease.	• Refer to a specialist podiatrist or member of the foot protection service (FPS) and request an assessment within 6–8 weeks. • Thereafter they should be assessed every 3–6 months in addition to their annual assessment, by a specialist podiatrist or a member of the FPS. • Assess feet and lower limbs, then agree a tailored treatment plan. • Provide written and verbal education with emergency contact numbers. • Refer for special intervention if/ when required. • Liaise with other healthcare professionals eg GP as necessary.
LOW	• No risk factors, as listed above, present. • Callus alone is considered low risk.	• Annual screening by a suitably trained Healthcare Professional. • Agree self management plan. • Provide written and verbal education with emergency contact numbers.

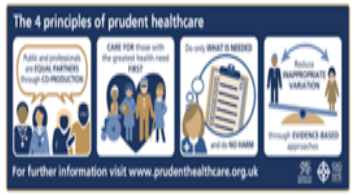
Record risk status and inform patient of their risk status and what it means.

*A change in foot shape that results in difficulty in fitting a standard shoe, as assessed by the practitioner.

These risk categories relate to the use of the SCI-DC foot risk stratification tool and NICE guidance (NG19, 2015).

Produced by the Scottish Diabetes Foot Action Group

Prudent Model for Prevention of Diabetes Related Crisis



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Step 1- Identify Hazards

Step 2- Calculate Risk of Hazard Contributing to Crisis

Step 3- Inform Patient Centred Management Plan to Reduce Risk

Step 1 IDENTIFYING HAZARDS

CLINICAL:
- Deformity and/or function loss
- Callus
- Neuropathy
- vascular disease
- Infection
- history of/current ulceration/amputation
- renal replacement

MANAGE:
- •Knowledge deficit
- •Skills deficit
- •Importance to self manage [<7/10]
- •Confidence to self manage [<7/10]
- •Carer support deficit

Step 2 CALCULATING RISK OF CRISIS

ACTIVE CRISIS/FOOT ATTACK

Ulceration, spreading infection, critical limb ischaemia, gangrene, suspicion of acute Charcot foot, unexplained hot ,red ,swollen foot with or without pain

MODERATE

CLINICAL:
- •Deformity (not effectively accommodated)
- •Neuropathy associated risk behaviours
- •PAD or renal replacement with sub optimal self/medical management
- •Problematic callus

PATIENT ACTIVATION TO SELF MANAGE:
- •Knowledge deficit
- •Skills deficit
- •Importance to self manage [<7/10]
- •Confidence to self manage [<7/10]
- •Carer support deficit

LOW

CLINICAL:
- •NO significant deformity or effectively accommodate
- •NO neuropathy or effectively self managed
- •NO PAD or renal replacement therapy or optimal self/medical management
- •NO/NON problematic callus

PATIENT ACTIVATION TO SELF MANAGE:
- •Importance and confidence scores >/= 7/10
- •Effective Carer support
- •NO knowledge and skill deficit

Step 3 IDENTIFYING NEED AND MANAGEMENT PLANNING

NEED (A)

Foot Protection Service (multidisciplinary team) to manage symptom and cause of acute crisis

NEED (B-D)

CLINICAL:
- •Foot Protection Team (Podiatrist/Orthotist)
- •Accommodation of deformity
- •Redistribution of deleterious pressure
- •CV risk modification
- •Signposting-medical management
- •Neuropathy related risk avoidance

PATIENT ACTIVATION TO SELF MANAGE:
- •Explore ambivalence and raise importance to effectively self manage and to engage fully in management plan
- •Explore and build confidence to effectively self manage and to engage fully in management plan
- •Build knowledge and skill when sufficiently activated

PREVENTION

NEED (G)
- •Foot Protection Team (no Podiatrist)
- •DAR

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9.
All Wales Podiatry Taxonomy Amendment

A holistic assessment of NEED

….will ensure that care is prioritised for those who need it most.

…. identifying health inequalities in access to timely, effective rehabilitation.

……afford health and care planners the opportunity to deliver equity in rehabilitation responsiveness across Wales……

All Wales Podiatry Taxonomy- 2021

PODIATRY NEED for INTERVENTION	These are guidelines and do not cover all foot conditions and care/treatment plans will be determined on an individual basis. Where there are multiple presentations, highest need will determine taxonomy
A ACTIVE PODIATRY CLINICAL NEED	• **Active Wounds** Texas classified as A-D 1-3 which require wound care intervention. • **Bacterial Infection** • **Acute Nail Surgery** • **Acute Charcot Neuro-arthropathy**- Requiring Podiatric assessment
B HIGH PODIATRY CLINICAL NEED	• **Musculoskeletal Pathology** which requires Specialist musculoskeletal intervention (Level 2 MSK NEED) • **Elective Nail Surgery** • **Post wound healing management**- where prevention of re-ulceration is not achievable through self-care alone • **Level 1 Activation Support** – Where there is Low Activation (problem solving ability) and Patient/carer does not demonstrate the requisite knowledge, skills, importance and confidence to self-care and prevent crisis. The NEED is for ambivalence (low importance and confidence) to be explored. Why is engagement in self/carer management not important to the individual?
C MODERATE PODIATRY CLINICAL NEED	• **Musculoskeletal Pathology** which does not require Specialist Musculoskeletal specialist (level 1 MSK Need) • **Foot Lesions** which require a general podiatry treatment plan for resolution and prevention within evidenced based timeframes • **Nail Pathologies** that require conservative treatments as nail surgery is currently contraindicated • **Level 2 Activation Support**- where there is Moderate Activation (problem solving ability)- Patient/carer does demonstrate some knowledge, skills, importance and confidence to self-care and prevent crisis but still requires significant support. The NEED is for Small supported achievable goal setting to build confidence and resilience
D LOW PODIATRY CLINICAL NEED	• **Level ¾ Moderate-High Activation (problem solving ability)** - Patient/carer does demonstrate the requisite knowledge, skills, importance and confidence to self-care and prevent crisis and requires minimal additional support, The NEED is Info, Edn, signposting & ref specialist services. To provide this when activation is lower would be counterproductive and risk
E NON REGISTERE	
G NO FURTHER NE (DISCHARGED)	

HAZARD			
1 HIGH	2 MODERATE	3 LOW	4 NONE
Level 1 (LOW) Activation Pre-contemplation stage. The Patient/Caregiver has: • LOW problem solving abilities • LOW Importance and Confidence to self-manage and engage in care, as equal partner	Level 2 (MODERATE) Activation Contemplation stage. The Patient/Caregiver has: • MODERATE problem solving abilities • MODERATE Importance and Confidence to self-manage and engage in care, as equal partner	Level 3 (MODERATE–HIGH) Activation Action stage. The Patient/Caregiver has: • MODERATE-HIGH problem solving abilities • MODERATE-HIGH Importance and Confidence to self-manage and engage in care, as equal partner.	Level 4 Activation Maintenance stage. The Patient/Caregiver has: • HIGH Level Problem Solving abilities • HIGH Importance and Confidence to self-manage and engage in care as equal partner

…….Service planning, coordination and provision should focus on the individual's need, using learning from peoples' experiences to drive improvement and demand and capacity, rather than location….

……Priority should be given to providing rehabilitation in the environment, and by the service that will secure the best outcomes for the individual at, or as close to home as possible……..

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10.
All Wales Patient Activation Project

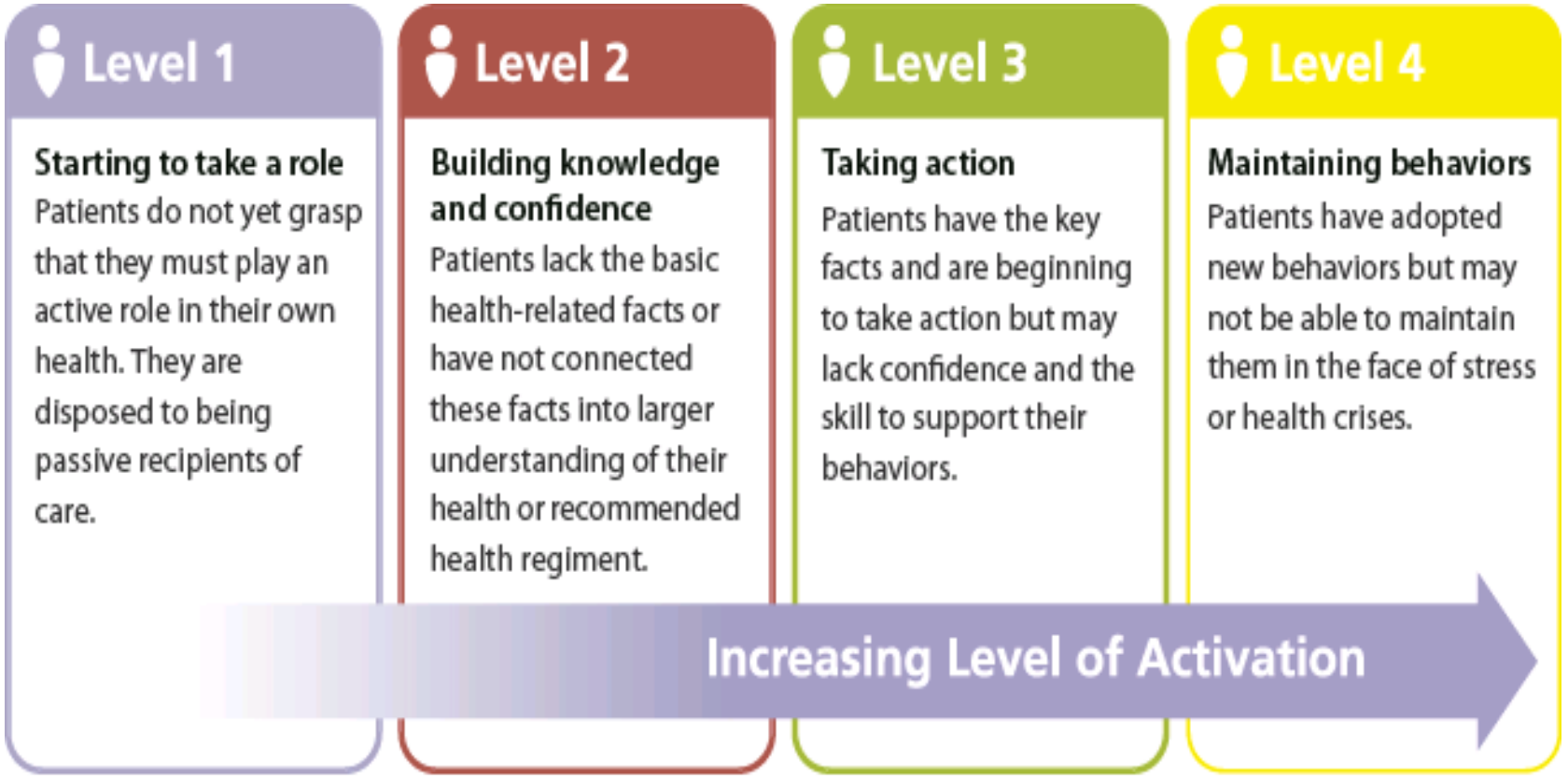
Use of PAM in 10,000patients living with Diabetes

Below are some statements that people sometimes make when they talk about their health. Please indicate how much you agree or disagree with each statement as it applies to you personally by circling your answer. Your answers should be what is true for you and not just what you think others want you to say.

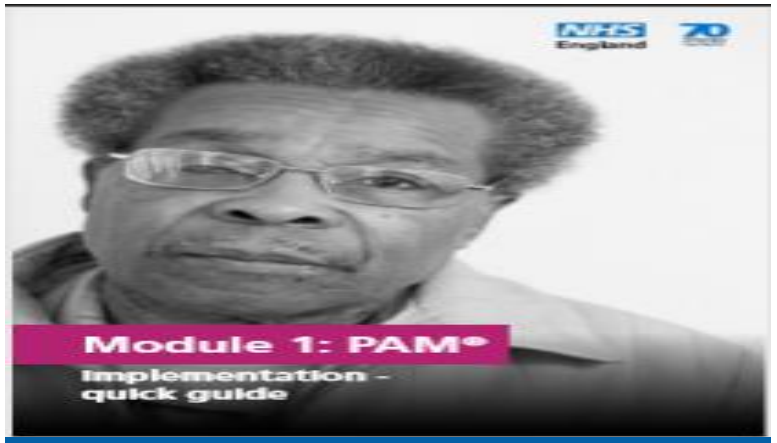
If the statement does not apply to you, circle N/A.

1.	When all is said and done, I am the person who is responsible for taking care of my health	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
2.	Taking an active role in my own health care is the most important thing that affects my health	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
3.	I am confident I can help prevent or reduce problems associated with my health	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
4.	I know what each of my prescribed medications do	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
5.	I am confident that I can tell whether I need to go to the doctor or whether I can take care of a health problem myself	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
6.	I am confident that I can tell a doctor concerns I have even when he or she does not ask	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
7.	I am confident that I can follow through on medical treatments I may need to do at home	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
8.	I understand my health problems and what causes them	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
9.	I know what treatments are available for my health problems	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
10.	I have been able to maintain (keep up with) lifestyle changes, like eating right or exercising	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
11.	I know how to prevent problems with my health	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
12.	I am confident I can figure out solutions when new problems arise with my health	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A
13.	I am confident that I can maintain lifestyle changes, like eating right and exercising, even during times of stress	Disagree Strongly	Disagree	Agree	Agree Strongly	N/A

Building activation



Source: Prof Judy Hibbard, University of Oregon



POLICY AND STRATEGY

Rehabilitation: a framework for continuity and recovery 2020 to 2021

A framework to help organisations plan rehabilitation services following the coronavirus pandemic.

First published: 29 May 2020

Last updated: 24 March 2021

NHS Digital

Search

Data and information Syster

NHS Digital › Data and information › Clinical audits and registries › National Diabetes Foot care Audit

National Diabetes Foot Care Audit

The National Diabetes Footcare Audit (NDFA) enables all diabetes footcare services to measure their performance against NICE clinical guidelines and peer units, and to monitor adverse outcomes for people with diabetes who develop diabetic foot disease.

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Llywodraeth Cymru
Welsh Government

www.gov.wales

Prudent health care and patient activation

An appraisal prepared for the Planned Care Programme

Andrew Rix & Katy Marrin
Independent Researchers

December 2015

NHS Digital

Search

Data and information Systems and services News

NHS Digital › National Diabetes Inpatient Audit › National Diabetes Inpatient Audit (NaDIA) - 2018

Publication

National Diabetes Inpatient Audit (NaDIA) - 2018

This is part of National Diabetes Inpatient Audit

Audit

Publication date:	9 May 2019
Geographic coverage:	England, Wales
Geographical granularity:	NHS Trusts, Hospital Trusts

- Re-ulceration rates…..
- Improved Healing
- Reduced New and FU demand- Reduced Frequency of attendance (mid to long term)……
- Reduced waste- Reductions in DNA/C.N.A's
- Increase Clinical capacity primary, community and secondary care settings……
- Increased Crisis prevention…….
- Reduced admissions……
- Increase in PIFU's
- Patient Satisfaction-Reduction in Complaints, Incidents & Claims
- Healthier lifestyles- reduced BMI; improved exercise (NERS); increased smoking cessation;