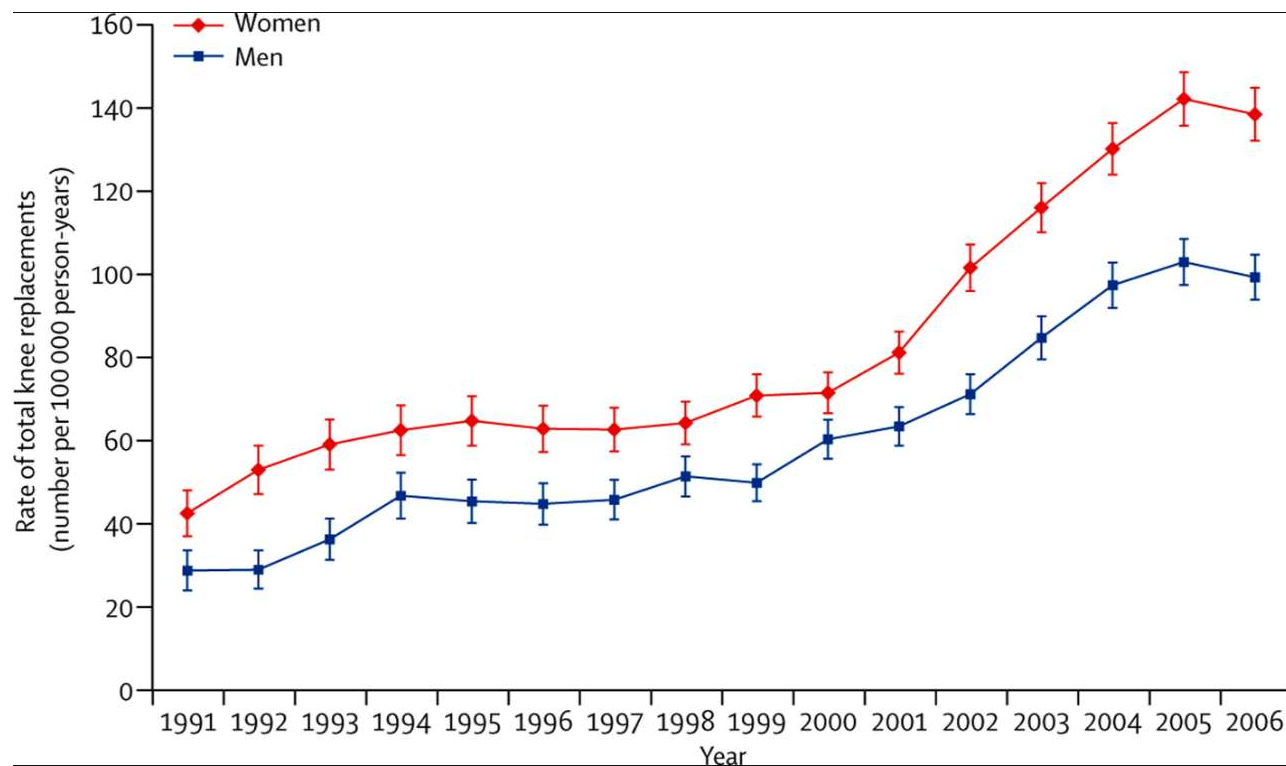


MyPathway: Supporting Digital Outpatients

Jill Lomas, MSK Programme Manager, STH
Simon Bramwell, Solutions Architect, ADI
June 2019

Virtual Outpatient Clinic

'Problem'



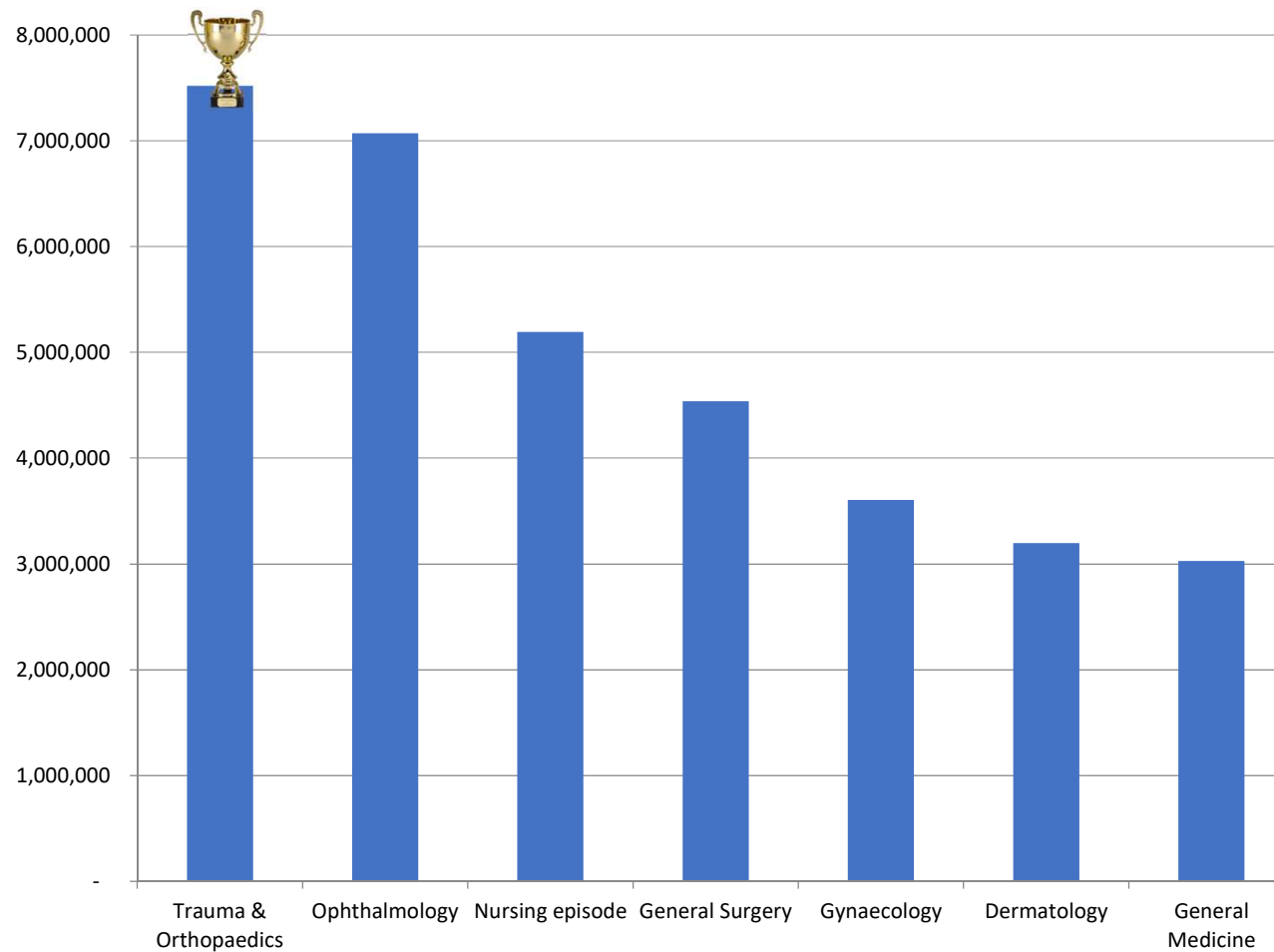
Currently a problem



All Attendances by Speciality



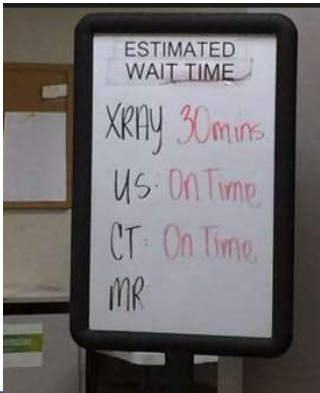
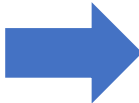
Sheffield Teaching Hospitals
NHS Foundation Trust



Problem with 1 year Out Patient Visit

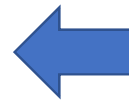


Car Parking Charges		
Up to	1 Hour	£3.50
	2 Hours	£5.00
	3 Hours	£6.00
	4 Hours	£7.00
	5 Hours	£8.00
	9 Hours	£12.00
	24 Hours	£15.00
Lost tickets charged at daily rate		



Standard Arthroplasty Follow-Up

- Seen at 6 weeks – Consultant
- Review 1 year
- < 70 years - 5 year review
- > 70 years - Discharged

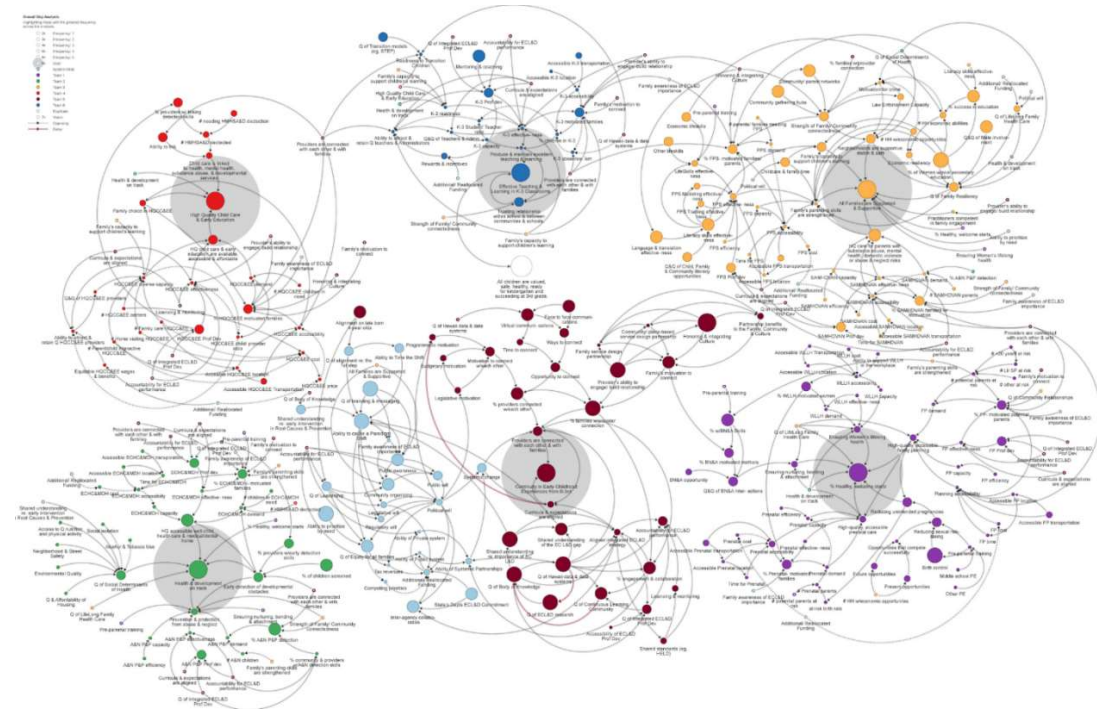


Patients Recruited
to Virtual Clinic

The screenshot shows the MyPathway interface for a patient named 'PATIENT 02, Demo (Mr)'. The patient's details include a birth date of 04-Aug-1965 (52y), gender Male, and NHS Number 300 520 1802. Below the patient details is a 'Patient Overview' section with tabs for Pathway, Appointments, PROMs, Resources, Messages, and Referrals. The 'Referrals' tab is active, displaying a table with columns: UBRN, Status, Triage Decision, Referred By, Referred To, Created At, and Invitation Letter. The table contains one row of data for a referral with UBRN 0002 8737 6643, Status Open, Triage Decision Clinic OE 1, Referred By David Donkin, Referred To DR MSK TAS Pooled, Created At 30-May-2018 08:39, and Invitation Letter Patient has already registered.

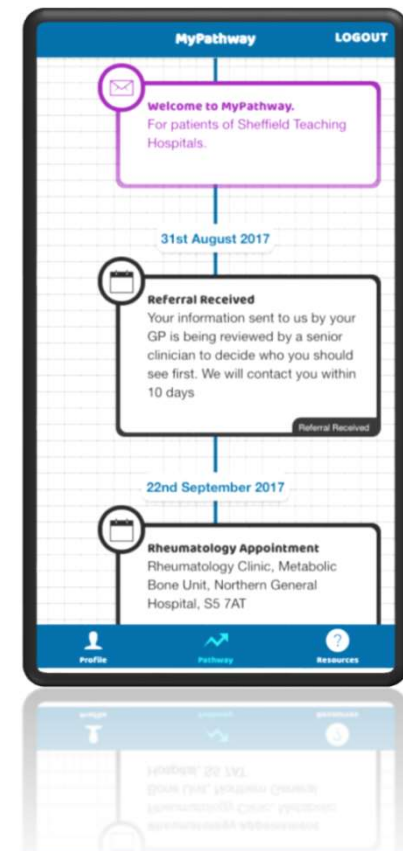
UBRN	Status	Triage Decision	Referred By	Referred To	Created At	Invitation Letter
0002 8737 6643	Open	Clinic OE 1	David Donkin	DR MSK TAS Pooled	30-May-2018 08:39	Patient has already registered.

Key Stakeholders and Time



MyPathway

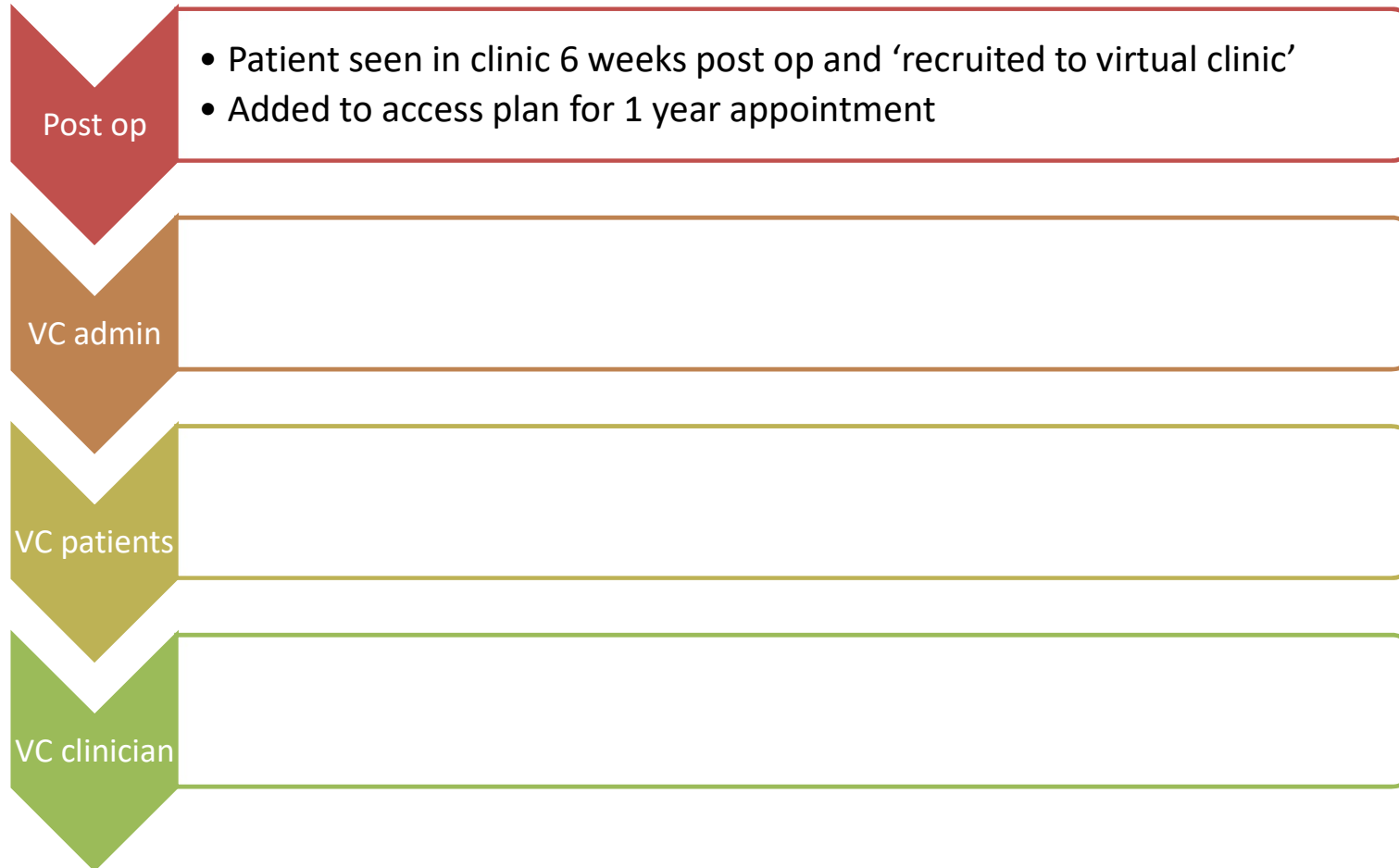
- Online, mobile, app
- Designed with patients
- Provides a secure digital way to communicate between STH and the patient
- Live messaging from Lorenzo to MyPathway so MyPathway knows the patients events
- Automates messages to patients based on rules from Lorenzo events
- Provided by ADI



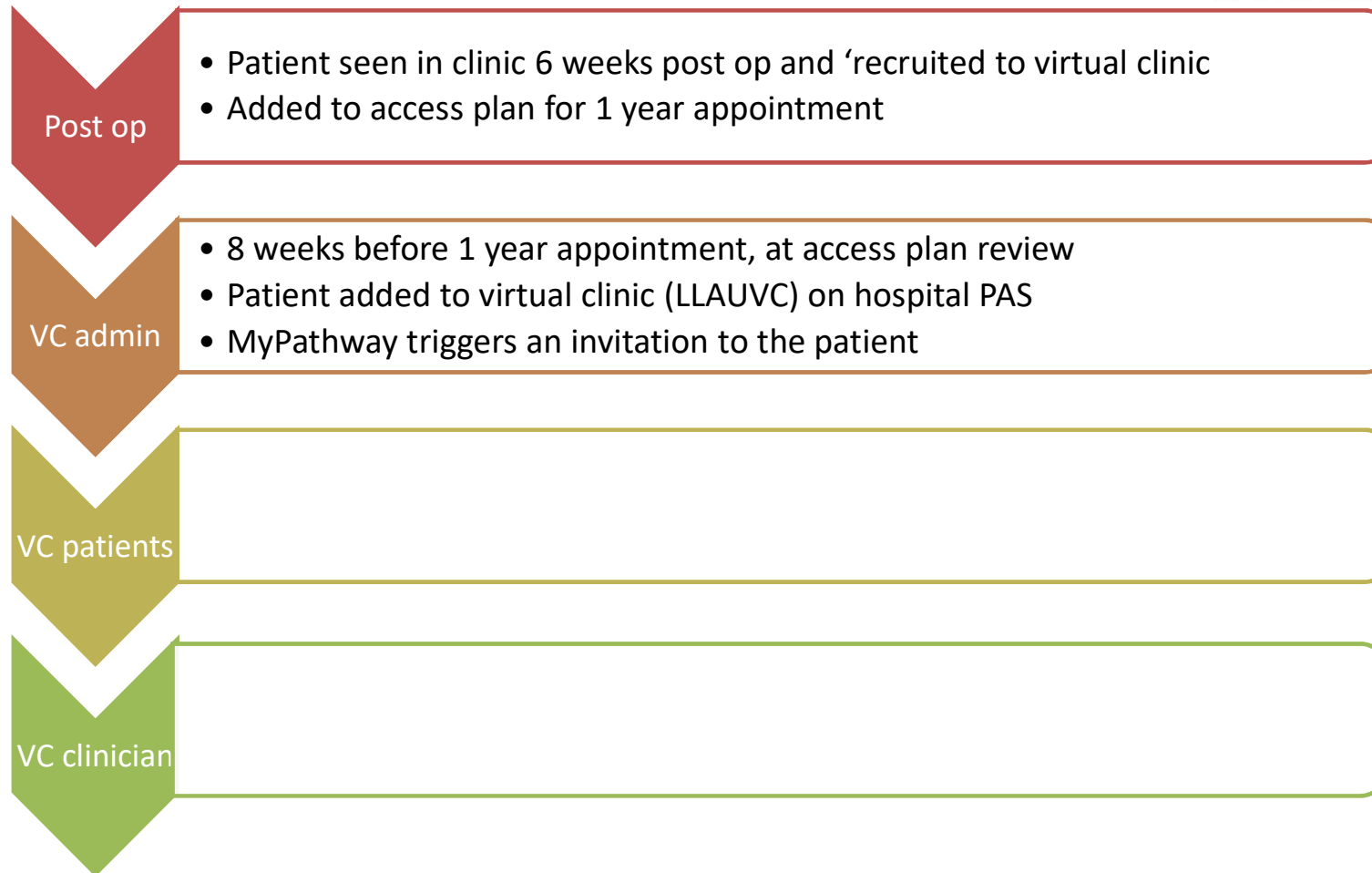
Virtual Clinics Process



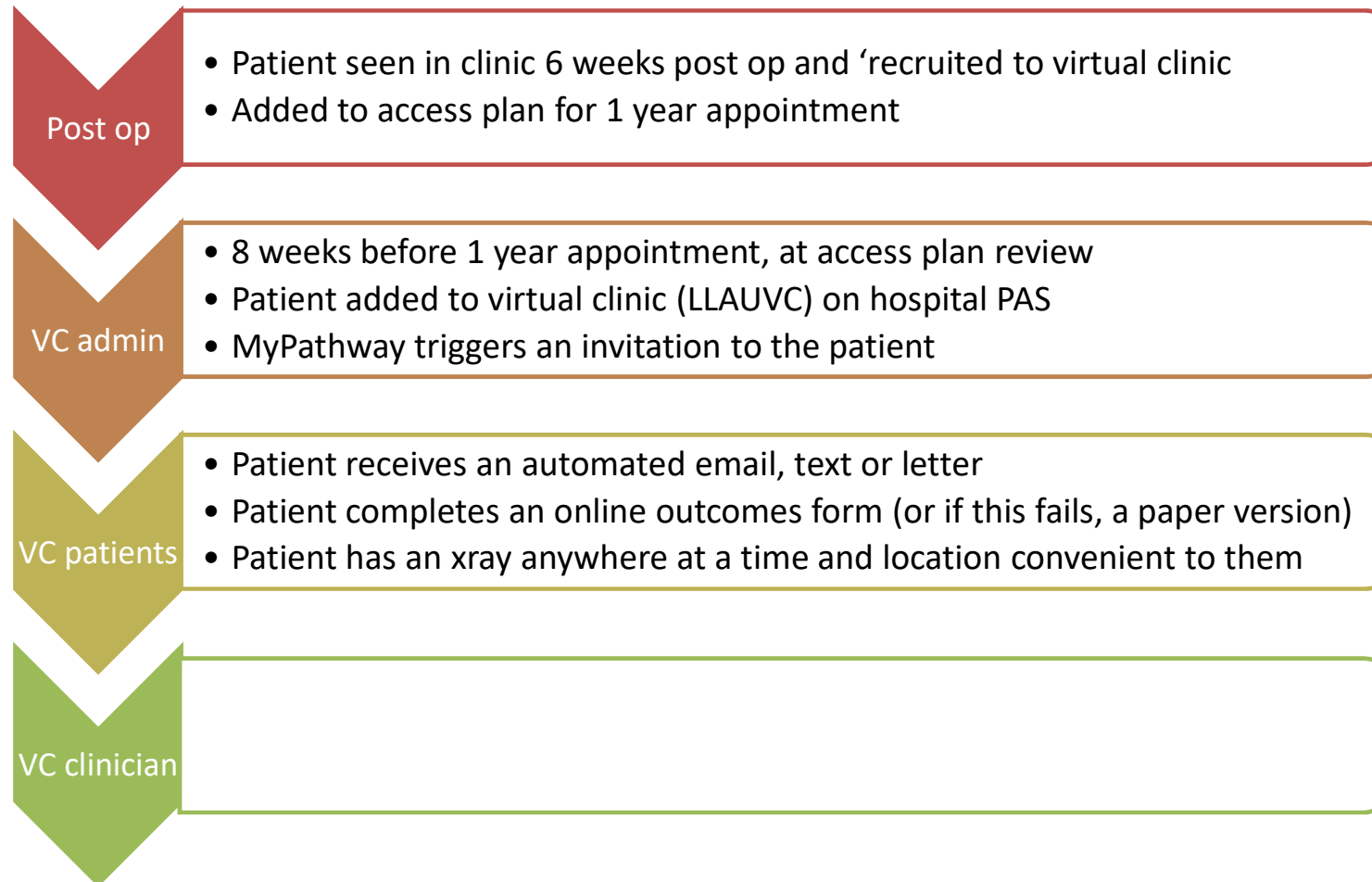
Sheffield Teaching Hospitals
NHS Foundation Trust



Virtual Clinics Process



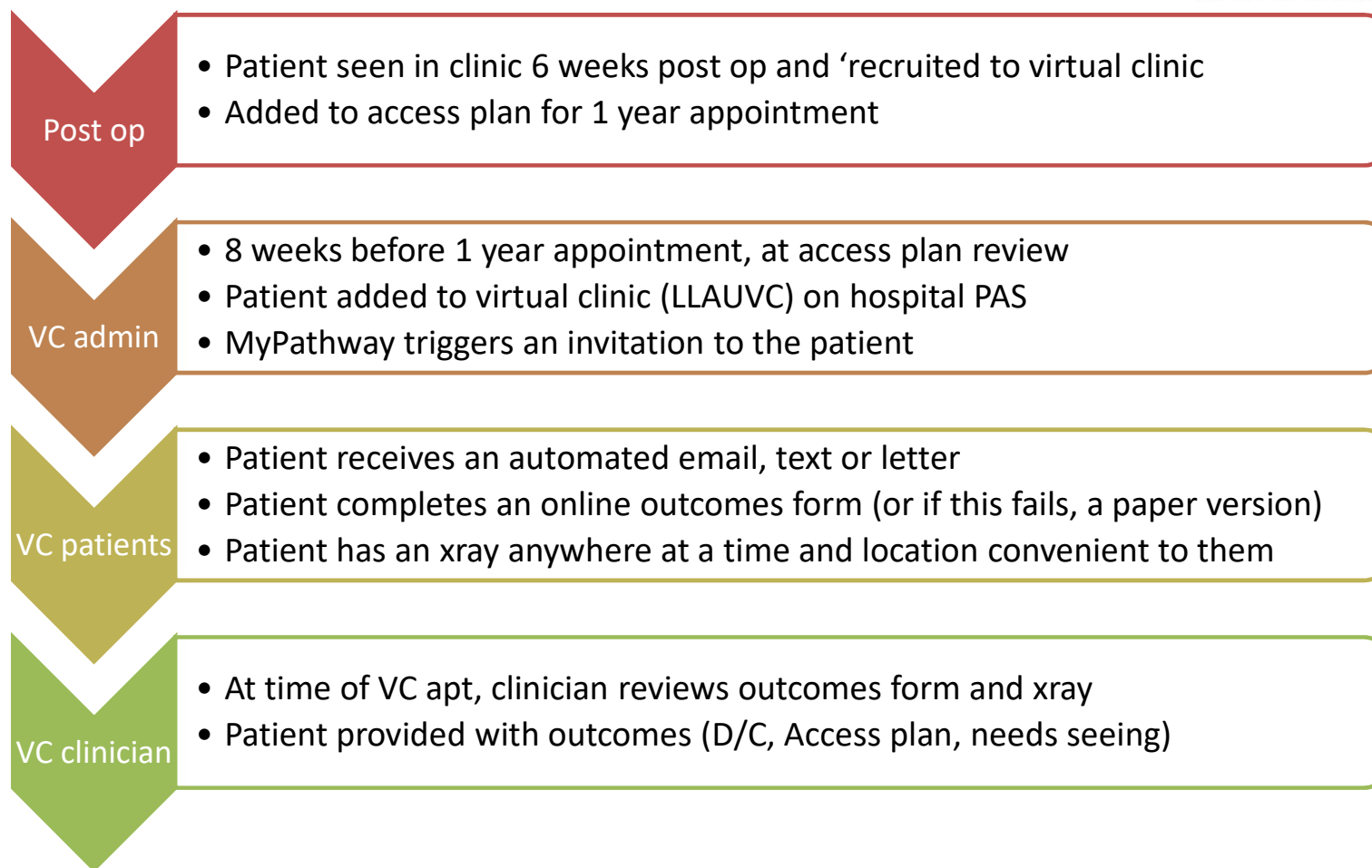
Virtual Clinics Process



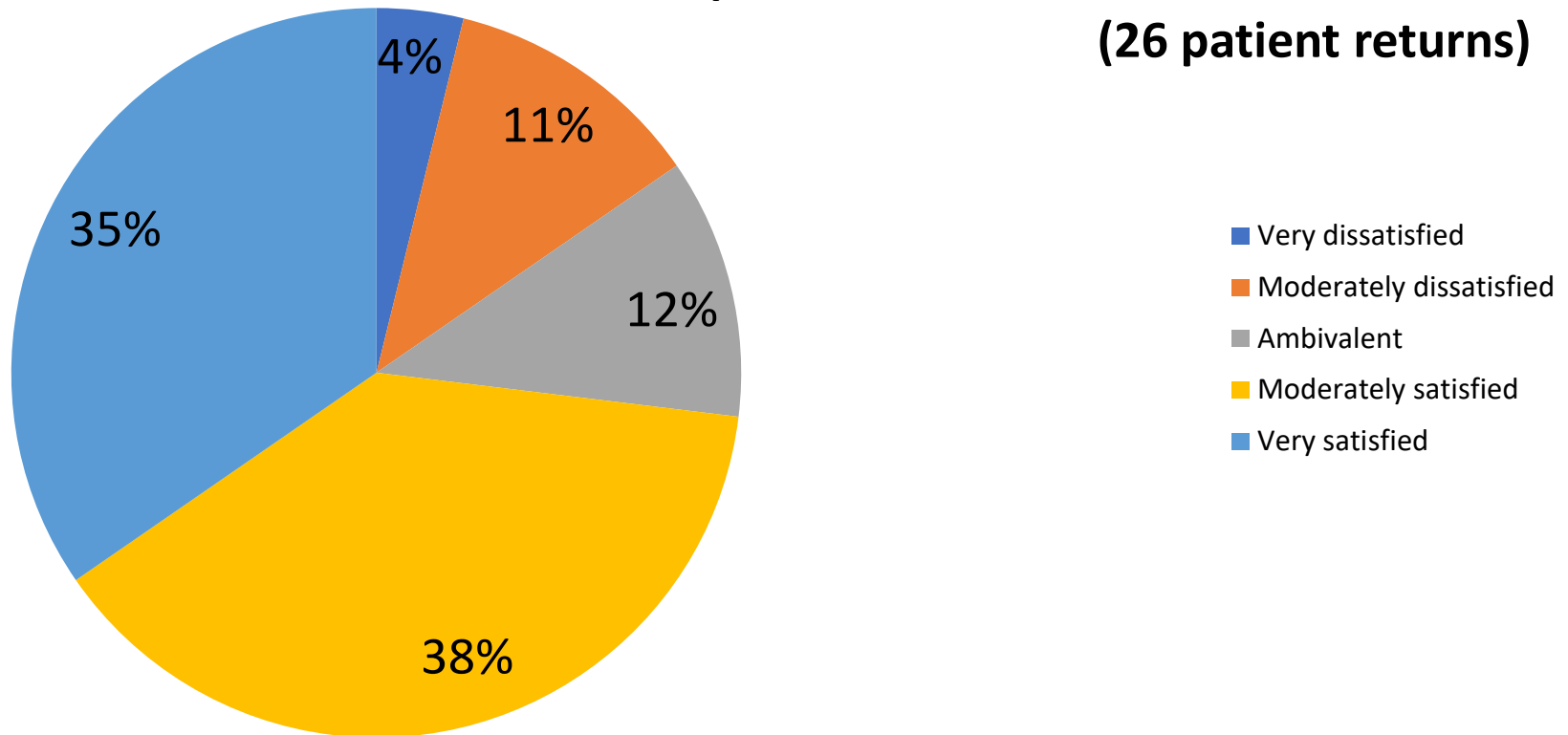
Virtual Clinics Process



Sheffield Teaching Hospitals
NHS Foundation Trust

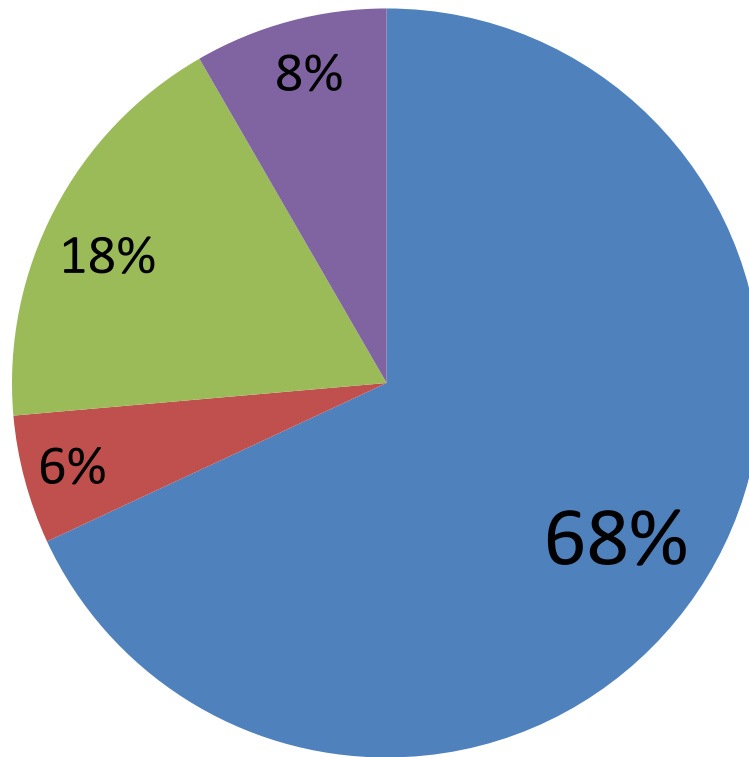


Levels of patient satisfaction with virtual clinic (26 patient returns)



Evaluation - Leeds University

Virtual clinic outcome (STH n=72)



- Patient discharged/long term follow up
- Patient to be review within 3 - 12 months (at surgeon's discretion)
- Patient to be seen at next available clinic
- Patient unrecorded

Virtual Clinics

Clinician

- 10 minute V/C vs 20 minutes ANP face to face.
- 18% need a face to face
 - Face to face = 75 clinics required
 - Virtual + 18% returns = 51 clinics required
 - **32% fewer clinics (900px / annum)**

Administration

- Digital methods adds no extra burden
- Paper based clinics report administrative burden is greater
- Postage costs 50% digital, 50% paper would be £420

NHS tariff should be less but not loads less!

The screenshot shows the MyPathway interface for a clinician. The top navigation bar includes 'MyPathway', 'Overview', 'My Team', a date filter 'may30', and a 'Go' button. The user is logged in as 'Demo Clinician'. The main content area is titled 'Manage Patient' and includes a sub-header 'View and manage your patient's appointments, resources, questionnaires, messages and referrals.' Below this, patient details for 'PATIENT 02, Demo (Mr)' are shown, including 'Born: 04-Aug-1965 (52y)', 'Gender: Male', and 'NHS Number: 300 520 1802'. The 'Preferred Name' is 'Demo'. A 'Patient Overview' section contains tabs for 'Pathway', 'Appointments', 'PROMs', 'Resources', 'Messages', and 'Referrals'. The 'Appointments' tab is active, displaying a table with columns: 'UBRN', 'Status', 'Triage Decision', 'Referred By', 'Referred To', 'Created At', and 'Invitation Letter'. The table contains one row of data.

UBRN	Status	Triage Decision	Referred By	Referred To	Created At	Invitation Letter
0002 8737 6643	Open	Clinic OE 1	David Donkin	DR MSK TAS Pooled	30-May-2018 08:39	Patient has already registered.

Virtual Clinics

Key impacts / proven benefits

- 68% of patients did not require a further out-patients appointment
- 32% total saving of clinician's time could be achievable
- Potential cost reduction or use time to deliver better waits for new or follow-up patients

Benefits for patients:

- Not having to complete and post paper forms
- X-ray at time and place convenient for them
- No travel time and expenses
- Not waiting round in waiting rooms



MyPathway - MSK

Integrated MSK Service implemented MyPathway across their single point of access (SPA) and within 12 months reported:

- PROMs / PREMs: out-of-clinic response rates 35%
- Administration of outpatients:
 - SPA saved 20% on staffing costs
 - Online appointment bookings increased so phone bookings decreased by 46%
 - 66% of new patients are processed administratively in 1 day (previously 7 days).
 - Average 58 patients in the administrative booking process (previously 641 patients over approx. 200 received per day)

To date:

- >27,000 patients signed up , 53% of new referrals via ERS
- Generic outcomes for all patients + 12 specific clinical pathways
- Patients are reporting a 76% satisfaction rate across accessibility, usability and usefulness

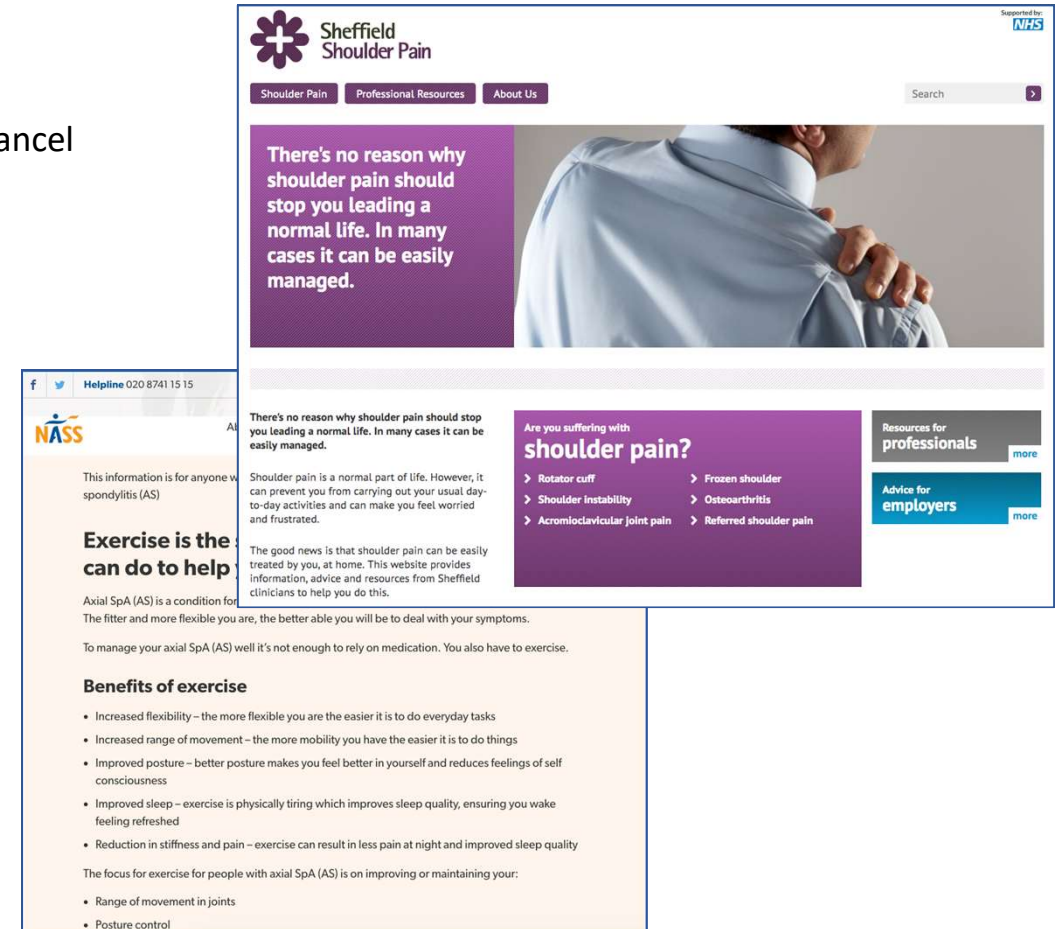
Ongoing developments

Simon Bramwell, Advanced Digital Innovation (UK) Ltd.

Self Management resources

Overall objective: encourage more self-care and lower deployment of specialised resources

- Several MyPathway customers apply **JE1** Self-Management resources
 - Generalised: suitable for all patients
 - Pre-treatment (while waiting for an appointment):
 - Appointment may then not be needed, and patients may cancel
 - Post-treatment: aftercare and lifestyle advice
 - Improved lifestyle choices
 - Based on Condition
 - Pre-treatment (while waiting for an appointment)
 - Specialised advice
 - Post-treatment: aftercare and lifestyle advice
 - Post-operative: faster recovery, reduced relapse
 - Based on Pre-treatment stratification
 - Initial questionnaire to patients
 - **In some categories: Discharge to self-care**



Slide 19

JE1

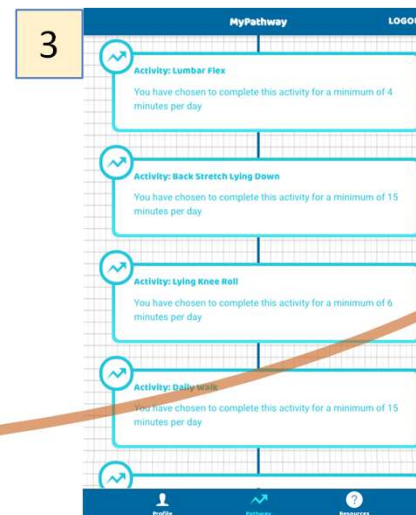
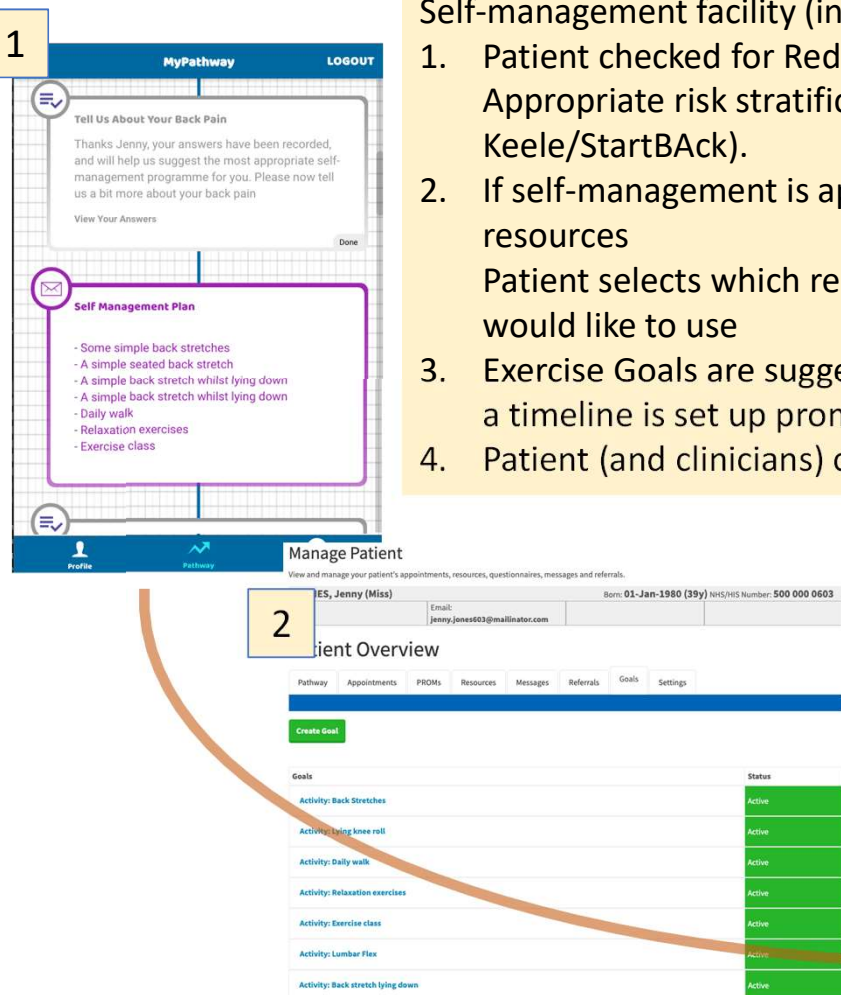
Several Trusts use MyPathway to facilitate self-management

John Eaglesham, 02/07/2019

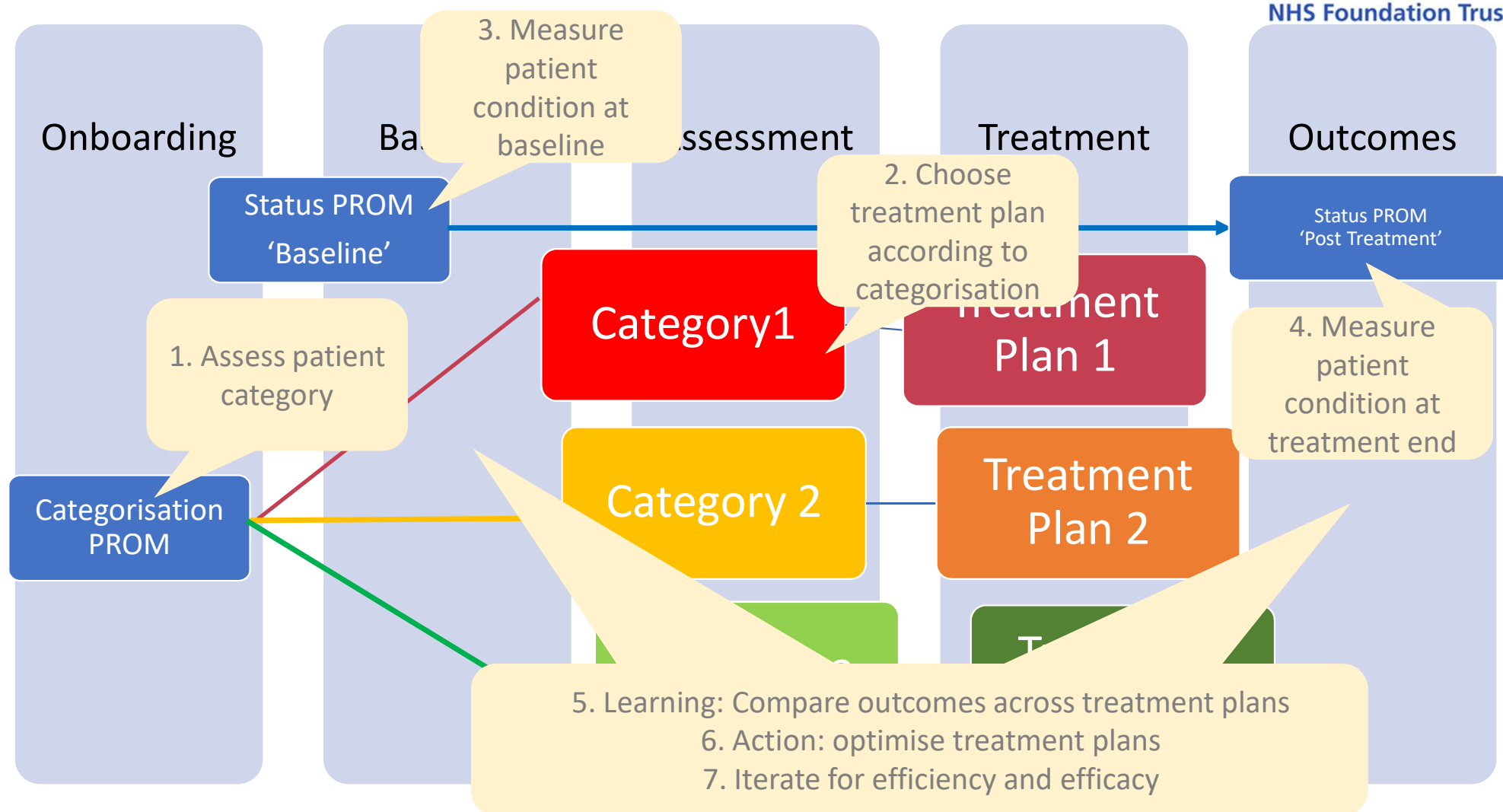
Ongoing development: Personalised Goals

Self-management facility (in development)

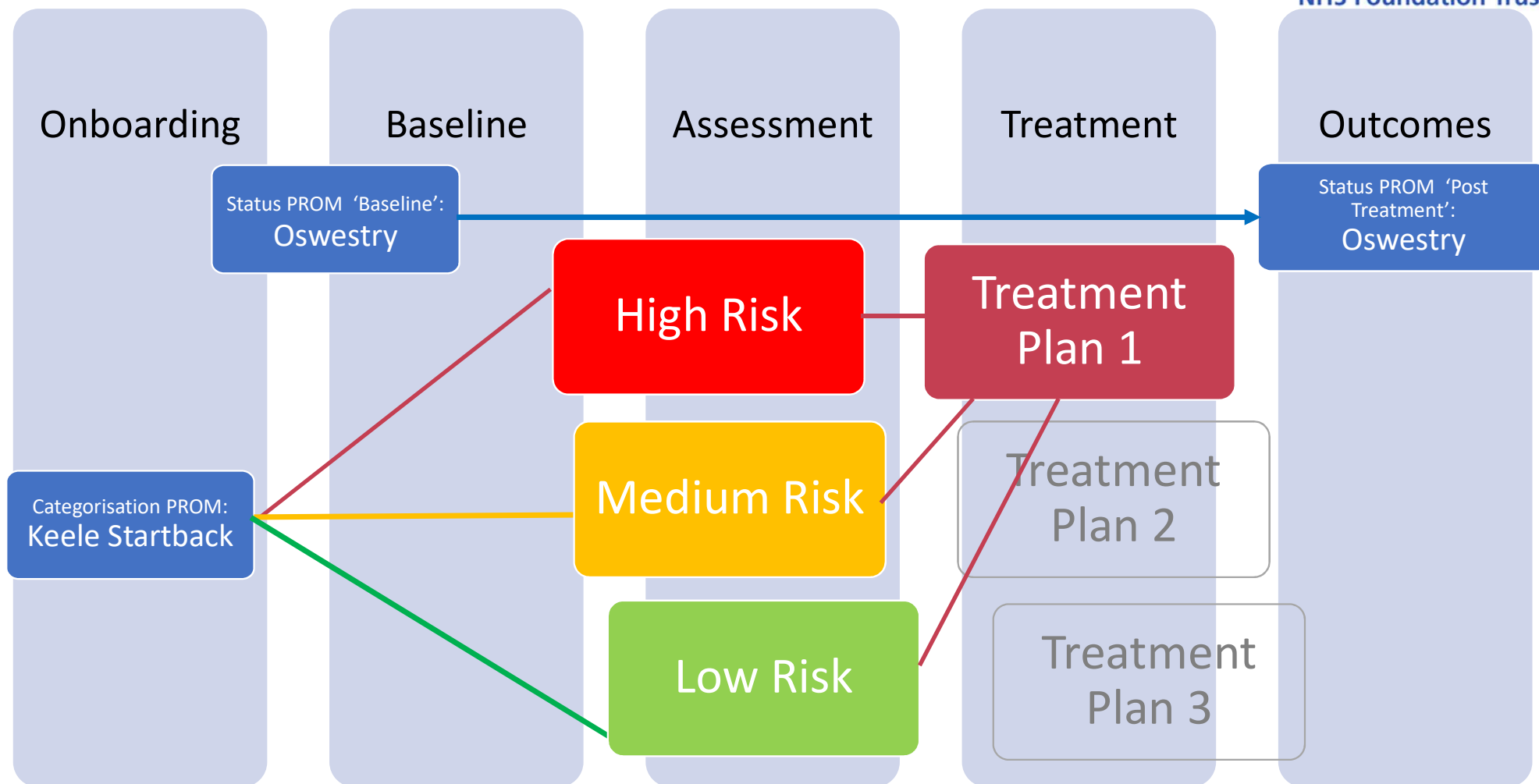
1. Patient checked for Red Flags via automated assessment
Appropriate risk stratification tools used to assess patient (eg Keele/StartBACK).
2. If self-management is appropriate, patient is offered a set of resources
Patient selects which resources (exercises, group activities, etc) they would like to use
3. Exercise Goals are suggested and agreed by the patient
a timeline is set up prompting patient to do the exercises
4. Patient (and clinicians) can monitor progress against each goal.



Stratification: concept

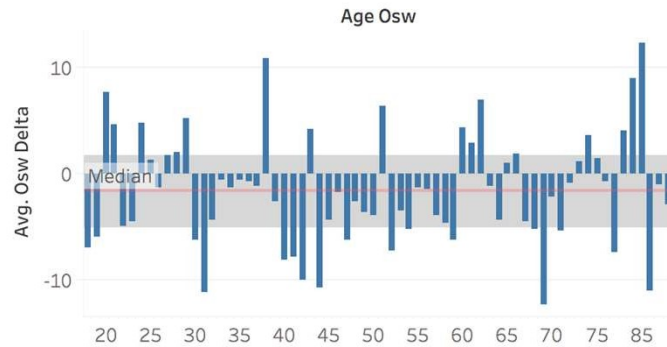


Stratification: existing example

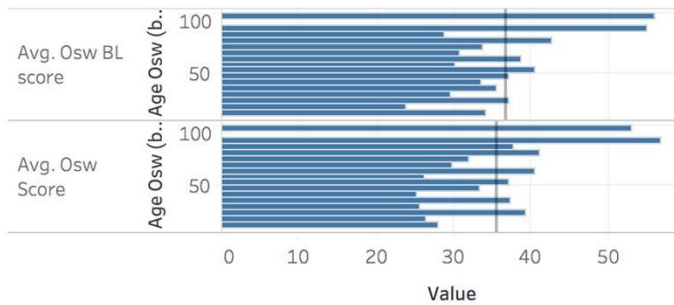


Keele/ Oswestry charts

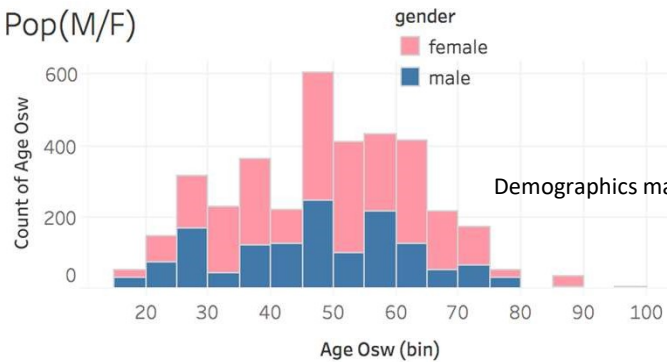
Oswestry_deltas_age



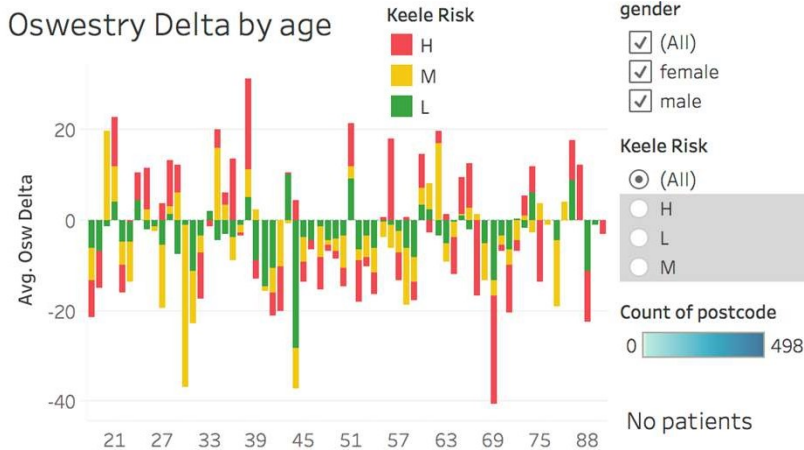
Osw Mean (age)



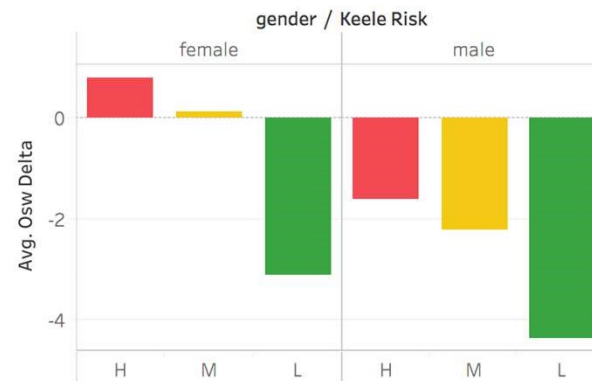
Pop(M/F)



Oswestry Delta by age



Oswestry Delta by Keele risk



Postcodes



Opportunity, based on Keele, to optimise treatment choices, deploying resources for best outcomes.

In progress: PROMs Data / LIDA

- Together with Leeds Institute for Data Analytics (LIDA)
Analysing MyPathway data to:
 - Understand how outpatients interact with digital systems
 - Look for outcomes-related effects
 - Compare patients with declined/improved outcomes
 - Optimise patient journeys

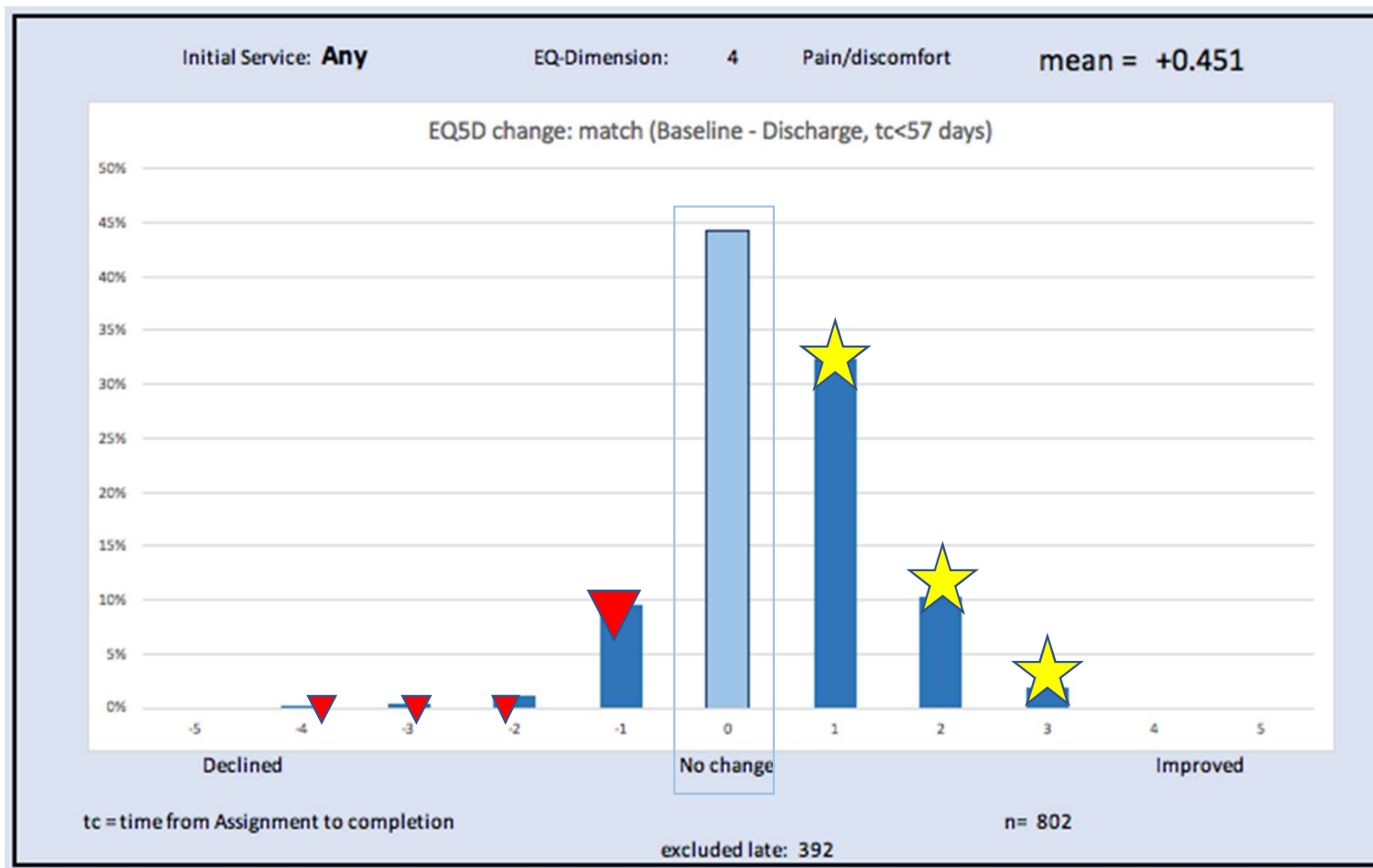


Dimensional analysis: Pain/Discomfort

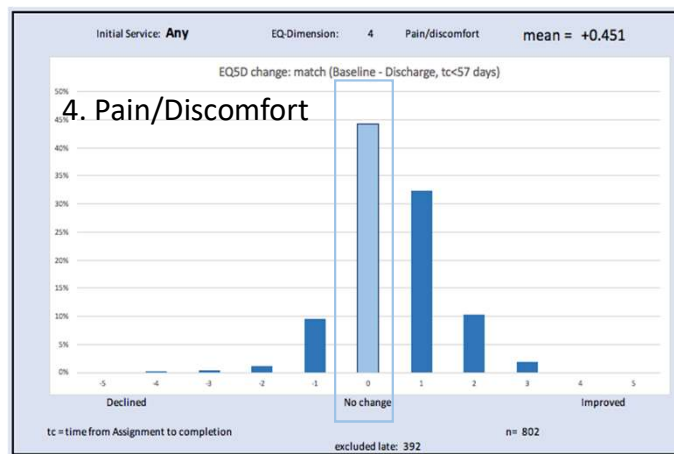
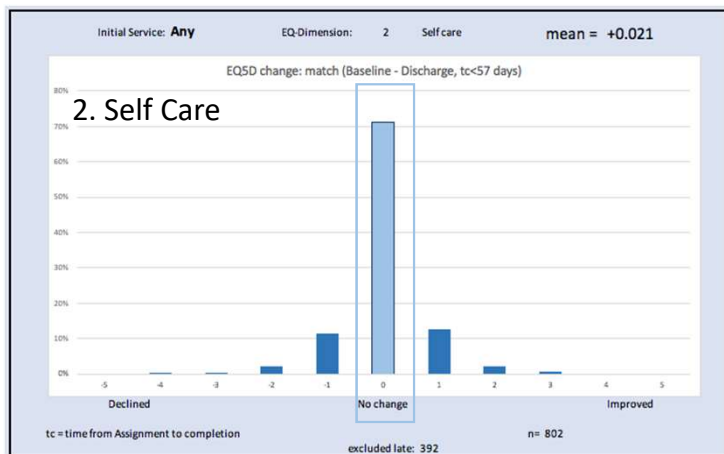
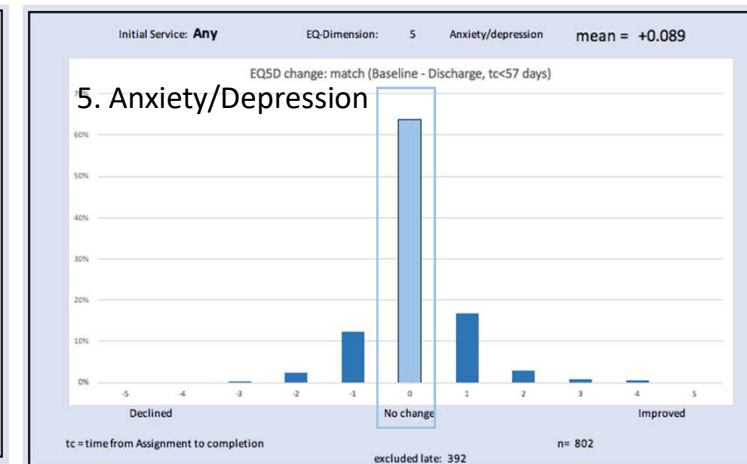
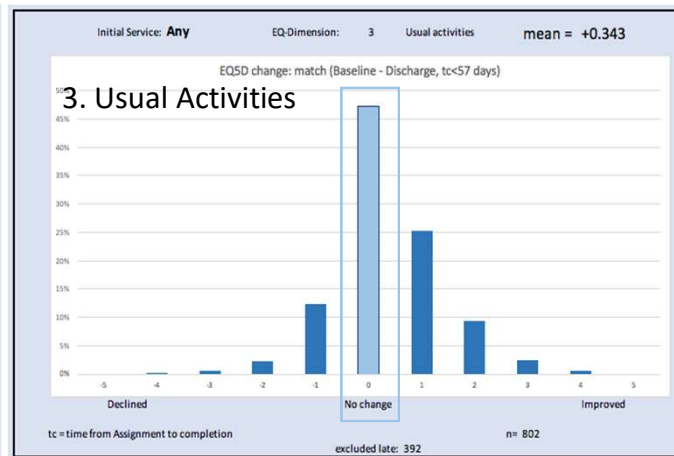
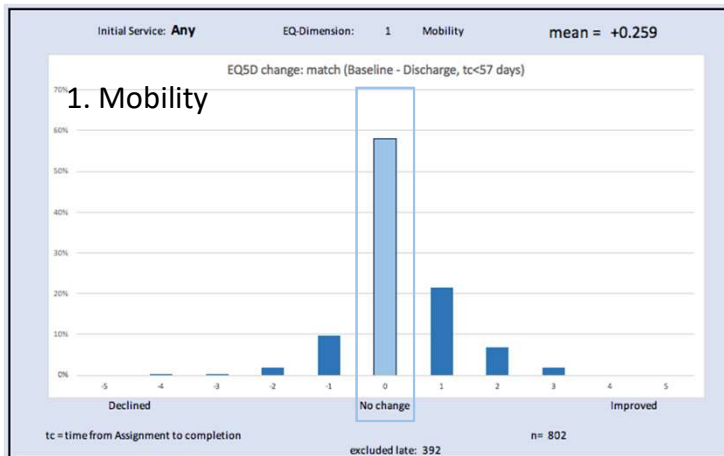
These patients
reported worse
pain/discomfort



These patients
reported reduced
pain/discomfort



Dimension analysis: All



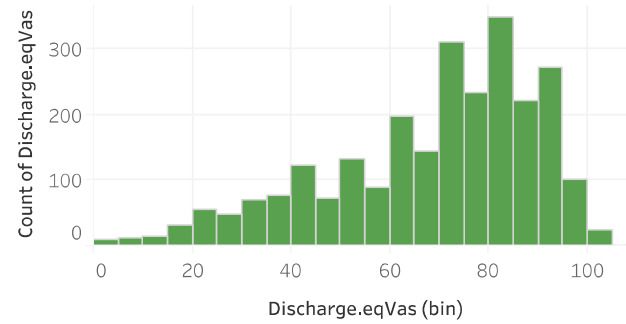
Dimension	Mean change
Mobility	+0.259
Self care	+0.021
Usual Activities	+0.343
Pain/discomfort	+0.451
Anxiety/depression	+0.089

n=802; excluded late: 392

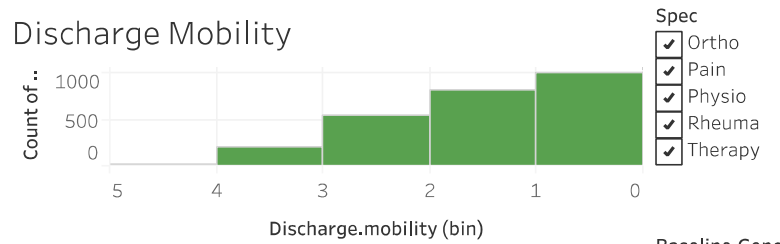
All

Discharge
All measures

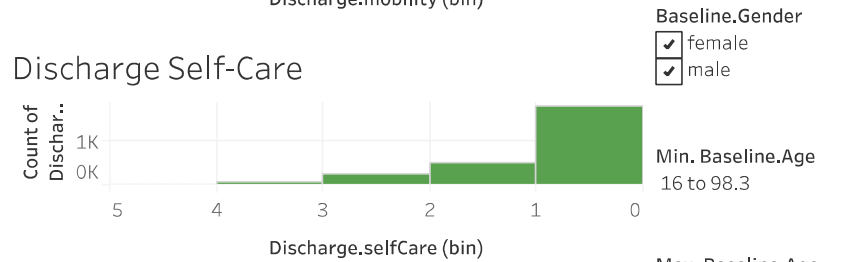
Discharge VAS



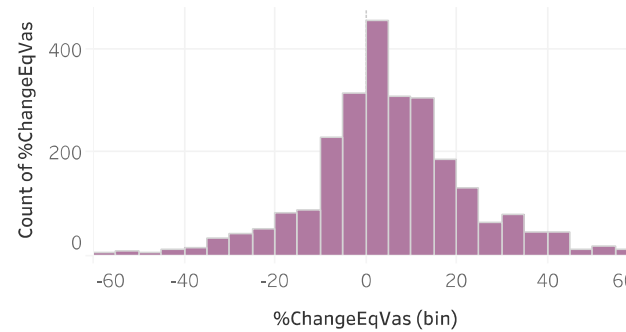
Discharge Mobility



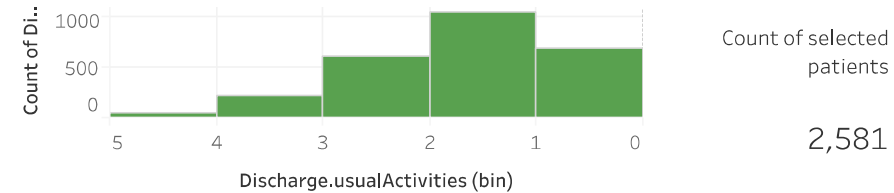
Discharge Self-Care



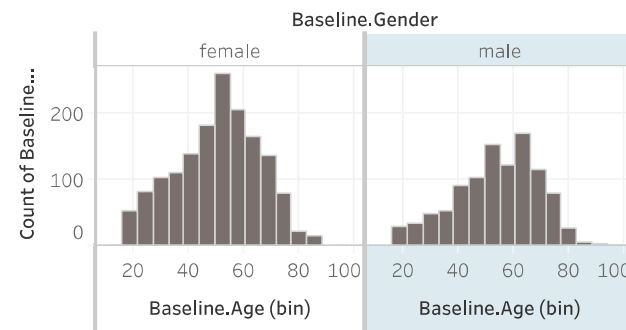
% Change VAS



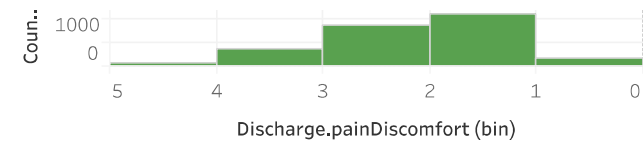
Discharge Usual Activities



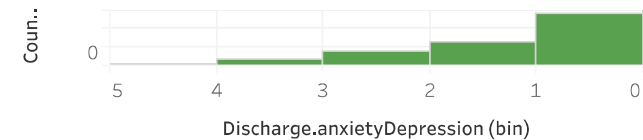
Demog



Dis Pain



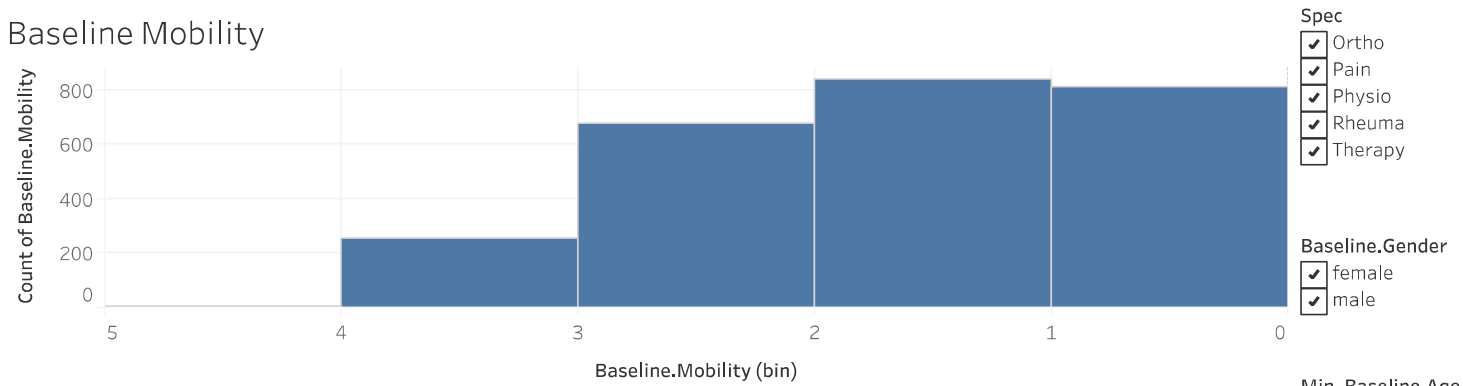
Dis Dep



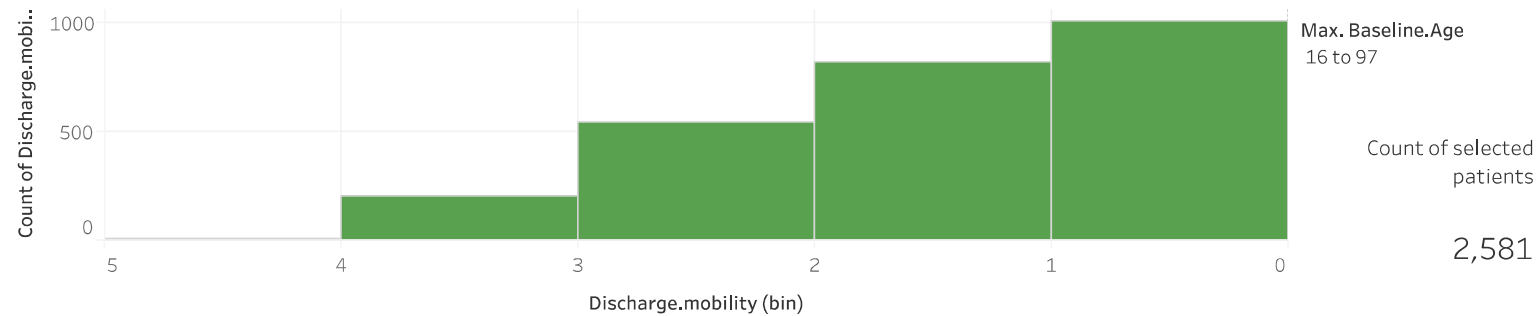
All

Before/After
Mobility

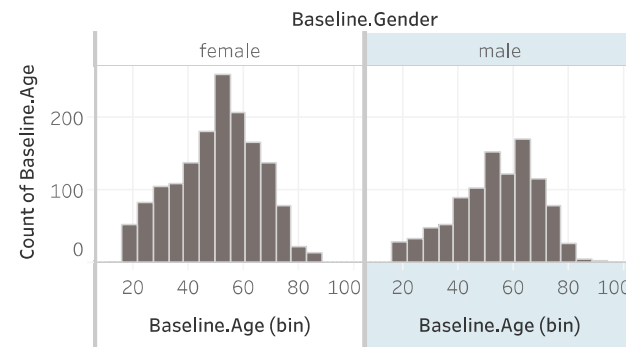
Baseline Mobility



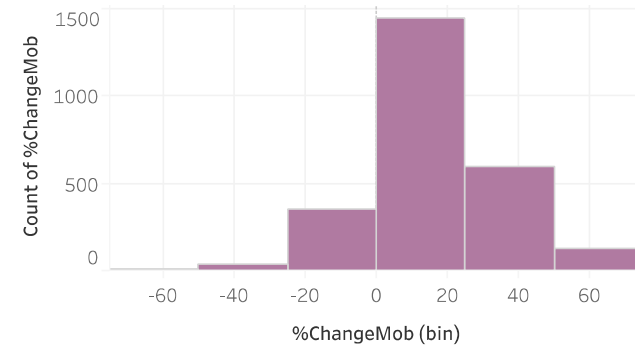
Discharge Mobility



Demog



% Change Mobility

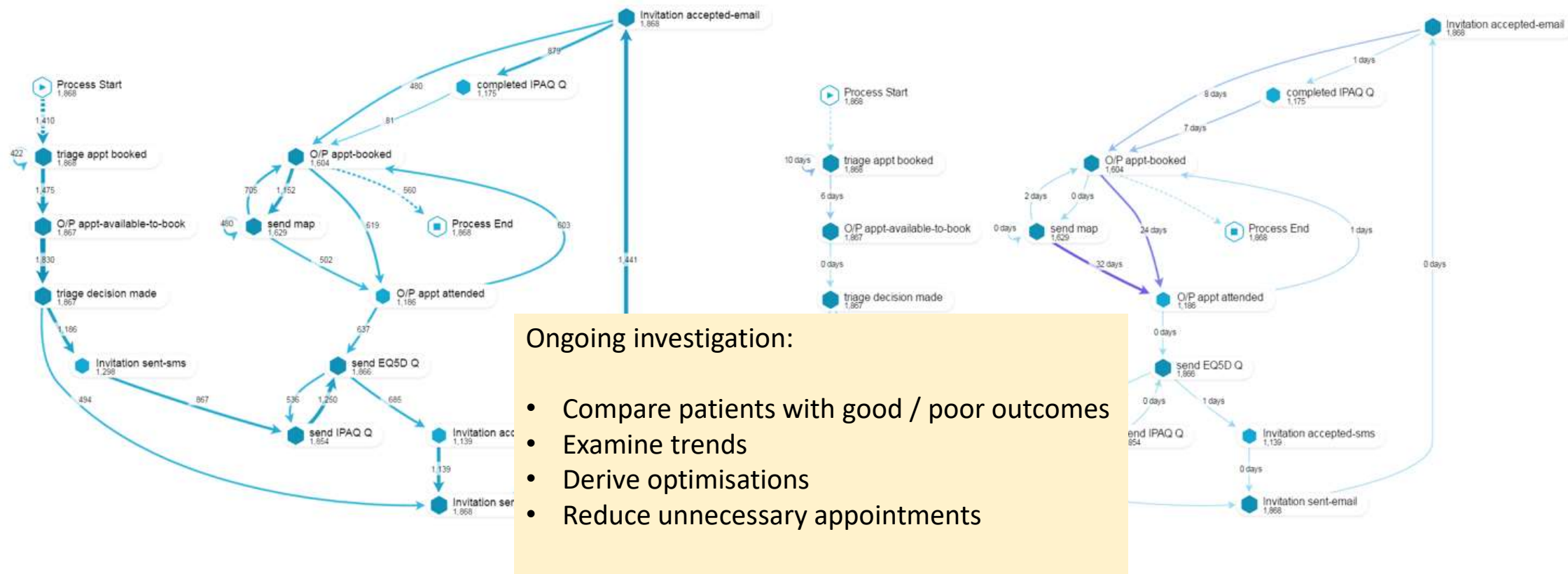


Process-mapping Patient Journeys

– monitor journeys before and after appointments

Case frequency

Average throughput time





Thank you

Better Informed Patients - Better Data - More efficient services