

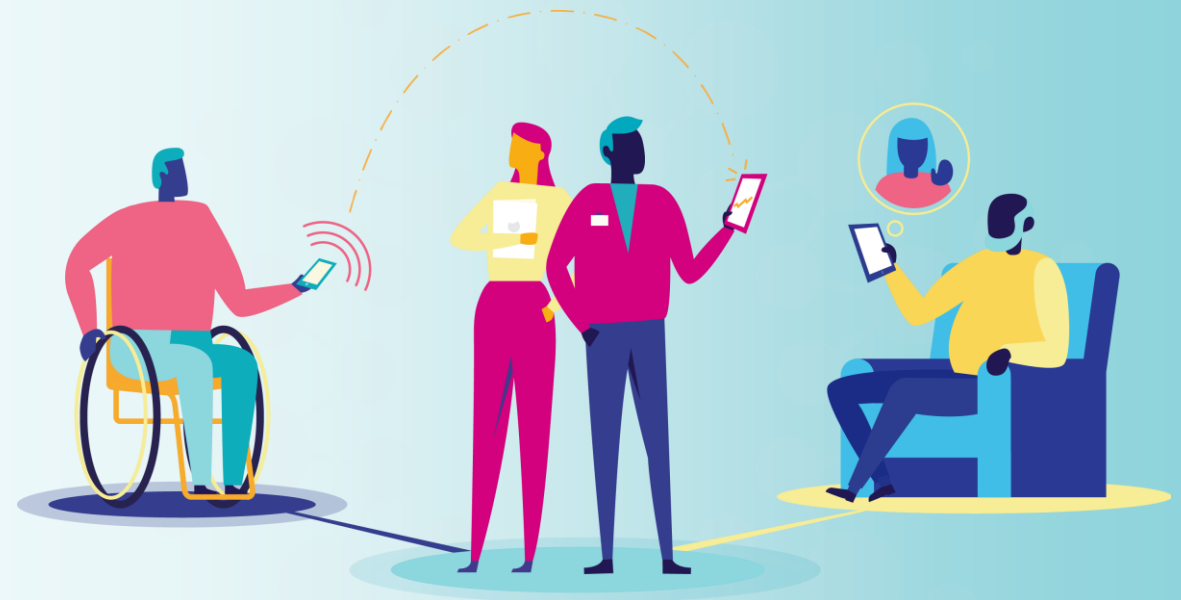
Using Digital PROMs to improve the GP consultation: a perspective from the UK

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University of Bristol

Symposium
30 November 2023



Centre for Academic Primary Care



National Health Service in England



- Health funding is devolved to the four nations of the United Kingdom.
- NHS England covers England



Centre for Academic Primary Care



Health
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South West

Primary care in England

- Patients register with a family doctor or general practitioner (GP)
- GPs work in practices of around 4,000 - 20,000 population
- Staffed by several GPs, nurses, admin staff, pharmacist and clinicians
- First contact point and “gatekeeper” to specialists located in hospitals
- Healthcare funding is raised through general taxation
- Doctors per 1000 population 3.3 (UK) vs 5.5 (Austria)
- Problems: Timely access, continuity of care

2023: How PROMs are used in the NHS

Population level



PROMs registries

EQ-5D for national joint registry



PREMs registries

GP patient survey

Individual clinical level:



Screening

QOF PROMs for specific conditions



Goal setting and action planning

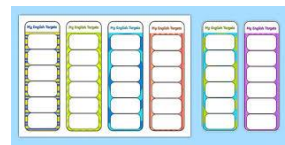
Goal-oriented PROMs



Pre-consultation planning/assessment

Condition-specific or generic PROMs

Clinical level: longitudinal



Routine outcome tracking

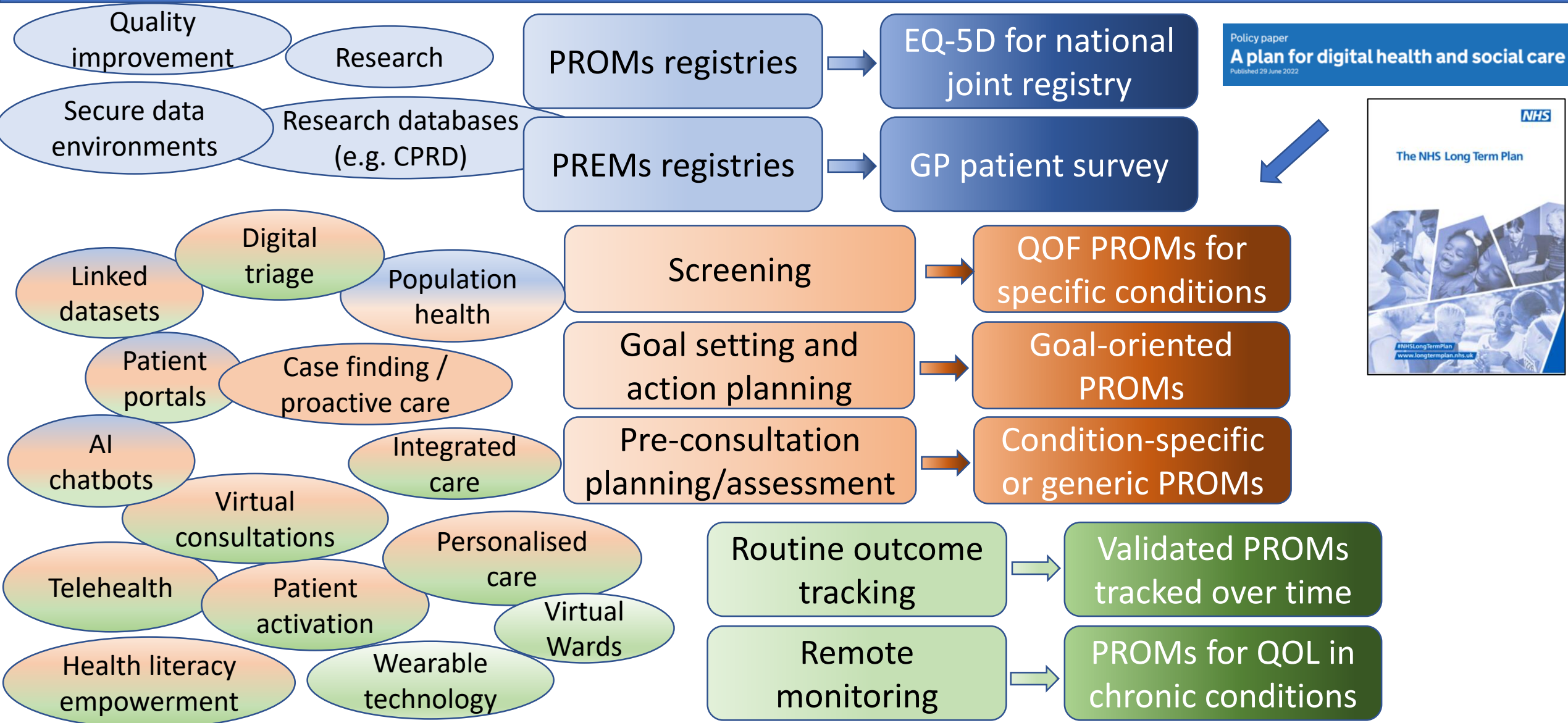
Validated PROMs tracked over time



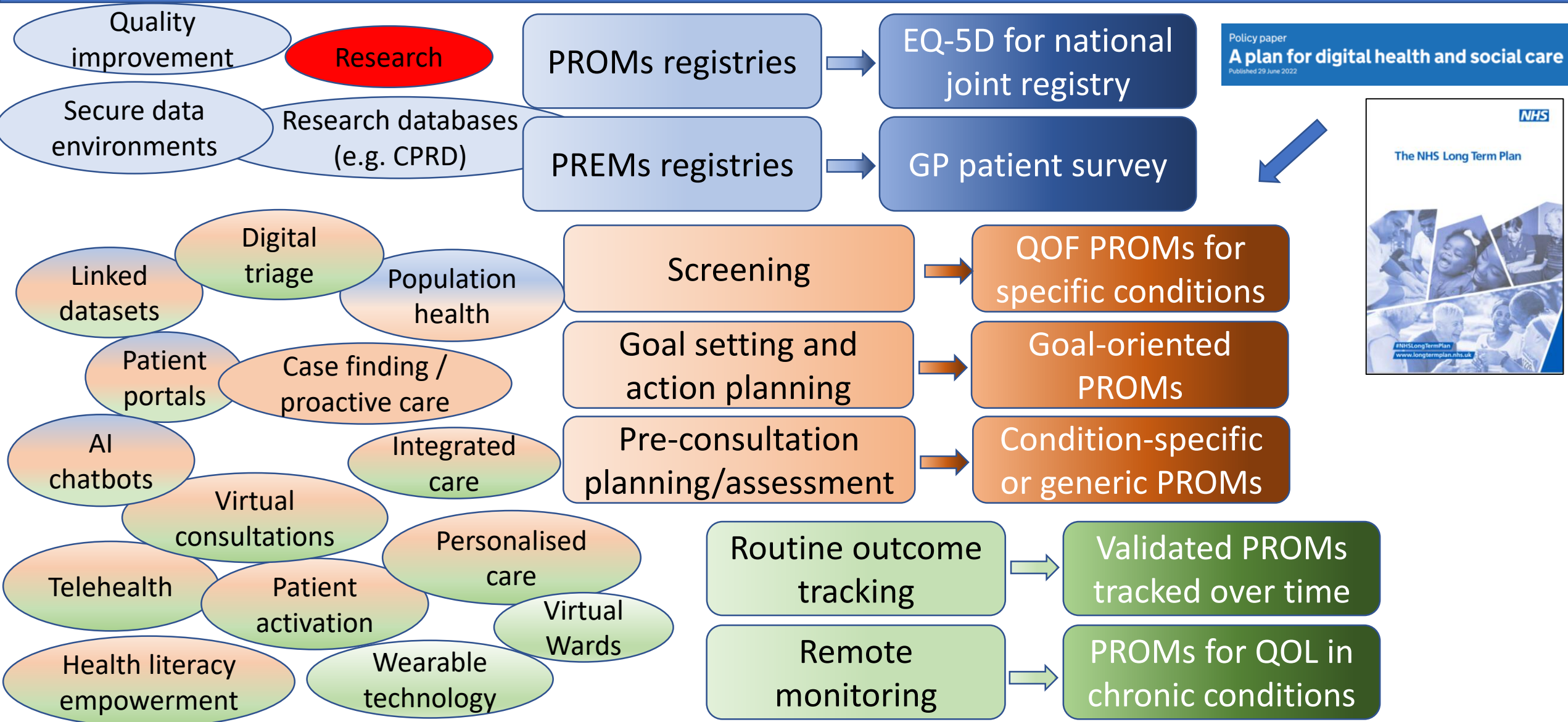
Remote monitoring

PROMs for QOL in chronic conditions

2023: The wider context of PROMs in the NHS



2023: The wider context of PROMs in the NHS



The story starts in the UK 2013 with the question: What is a good outcome in primary care?

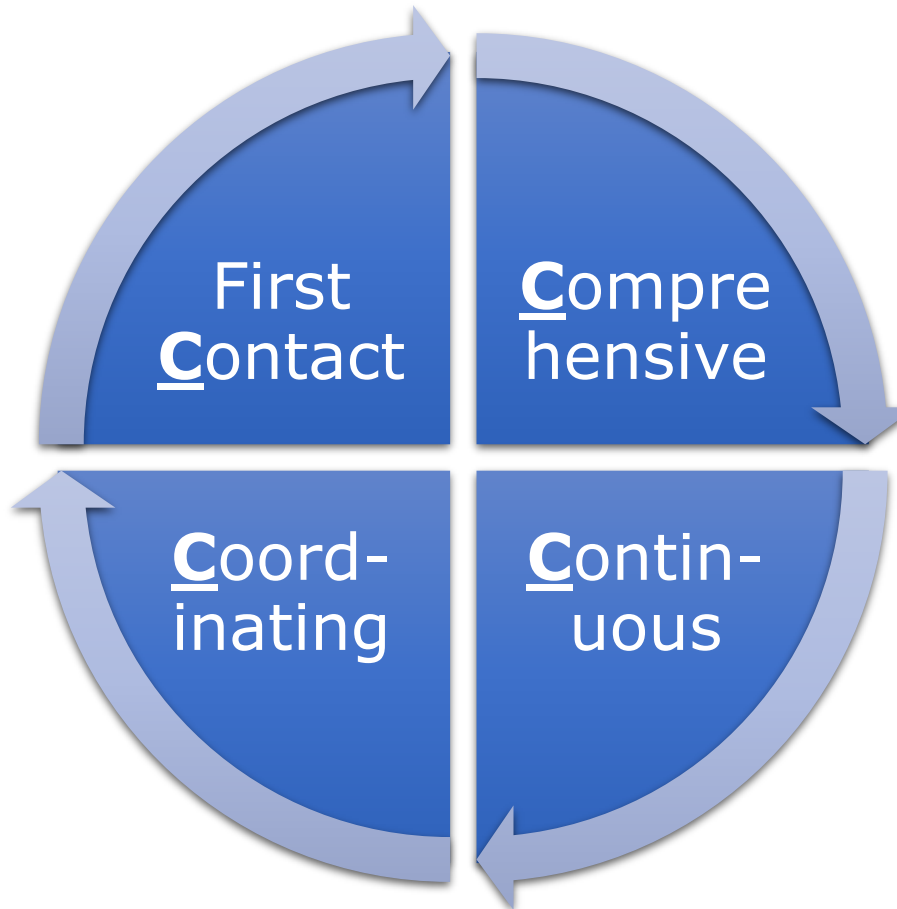
There is a need to measure the outcome of Primary Care



PROMs are widely used to measure outcome



There are challenges in using PROM in Primary Care



***Barbara
Starfield's model
of primary care***

Developing a PROM for measuring impact in primary care

Mental health

Sometimes you break down and you can't cope. She [doctor] makes you feel positive just by talking to you I suppose.

Pain

The outcome I want is the pain to go away.

Health concerns

the swelling hadn't gone down, I just went back, more for reassurance than anything.

Developing a plan

I need some advice about the plan of action

Managing symptoms

Now if I get a recurrence I know exactly what to do.

Accessing other services

She referred me to a really amazing service.

Affect on life and family

It's affecting me, and my family. It can't go on.

Understanding health

I didn't feel like I was getting all the answers. I need to understand this.



Primary Care Outcomes Questionnaire

Pain/Other Physical
Anxiety/Depression
Normal Activities
Life Enjoyment
Health Concerns




Health Status

Understanding,
Ability to
Self-Care, Manage
Symptoms, Stay Healthy



Health Knowledge and Self-Care

Ability to access
healthcare, Trust, Clinician
will listen and detect
serious health problems



Confidence in Health Provision

Shared Patient/Clinician
Plan, Adherence, On the
right path, Sense of
Support



Confidence in Health Plan

Available free for non-commercial use
www.bristol.ac.uk/primaryhealthcare/resources/pcoq/

Issues raised by some patients

Patient wants to be listened to

[That doctor] will listen to you, that's, to me, is 90 per cent of it, is listening to what you've got to say.'

Do not address deeper issues

very often GPs don't want to listen to... the ongoing issues

Problems with lack of continuity

'Well, the previous [practice], if I was ill, I'd see different doctors, and they just wanted me in, straight out, giving me different pills and all that,

Patient feels rushed

some of them [doctors] ... As you get in there, 'it's like you haven't even finished writing your prescription, and then you're finished, you know.'

Series of short interactions

[some doctors] want to be able to deal with something there and then, within a few minutes

Patient not part of process

[I want to] have a proper dialogue - not just to go in and be told what is wrong [...] and I'm not always sure that I can be part of that process because I don't always feel like you're listened to



Research on Opening and Closing shows....

Opening the consultation



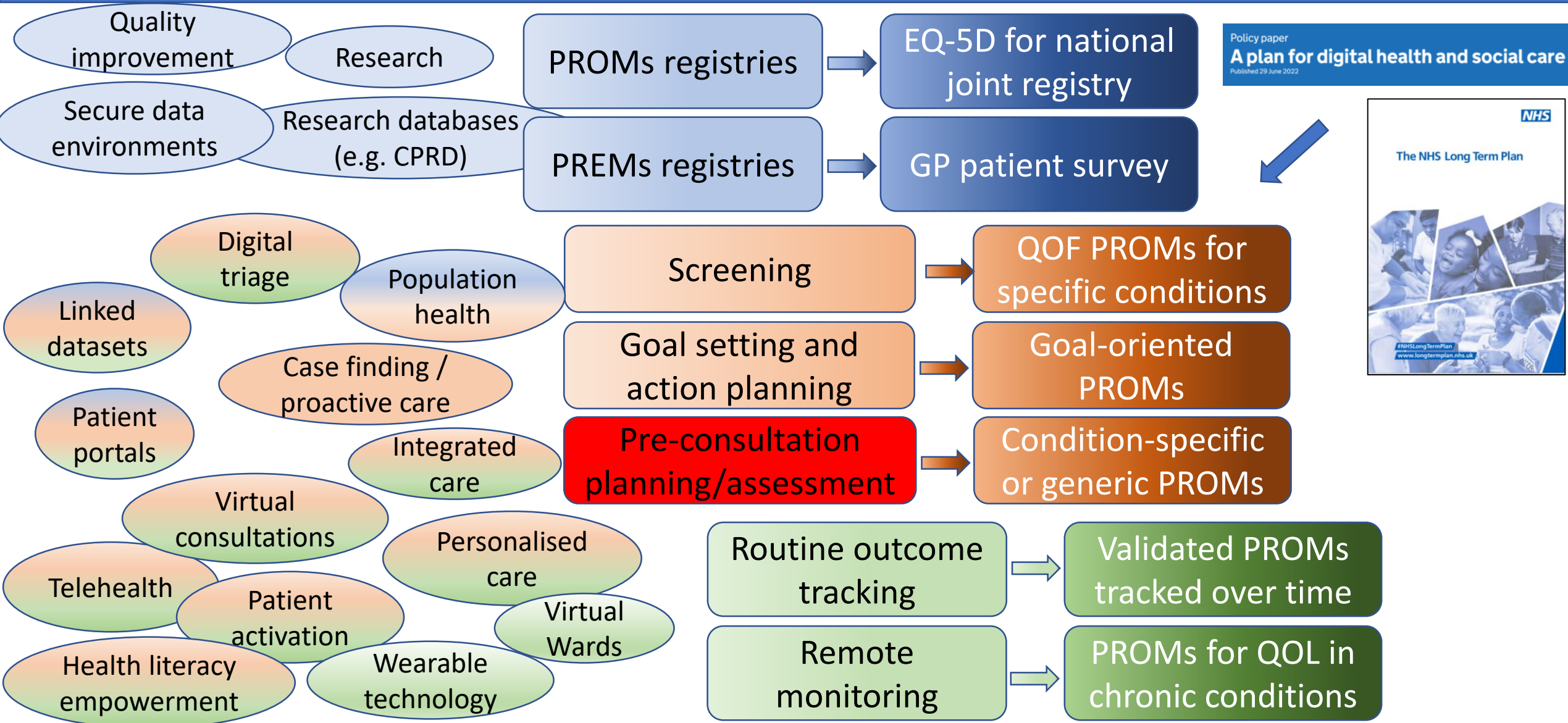
- Opening statement takes 30 seconds on average (Rabinowitz, 2004)
- Doctor often interrupts the patient opening statement (Marvel, Epstein 1999)
- Sharing information before the consultation can help

Closing the consultation

- Closing advice can be given so quickly that patients are not clear on the plan agreed. (Kessels 2003)
- Written plan can help



PCOQ as a pre-consultation PROM





Consultation Open and Close Study

Opening the consultation

- PROM as part of the intervention (based on PCOQ)
- Completed by patient. Shared with GP before consultation.
- GP to tell patient they have read the PROM
- Not interrupting the opening statement after this

Messages 4G 14:24 31%

University of Bristol

At the moment:
How worried or concerned are you
About your current state of health

😊 Not at all

😊 Slightly

😊 Moderately

😊 Quite a bit

😊 Extremely

reset

question number 7 of 24

Next Page >>

Closing the consultation

- GP and patients co-produce a plan of action
- Patient receives plan of action after the consultation

Next steps and advice from One Care Practice 1 today (20-Aug-2021)

- The cough and the reflux may be linked.
- Try not to eat late at night and try to exercise after eating.
- The blood in your poo is likely a colitis flare. We will do more tests to investigate.
- We discussed your medication and agreed the following:
 1. Start of 40 mg of prednisolone and reduce by 5 mg per week for 8 weeks.
 2. Continue the omeprazole on 40 mg per day until you finish the prednisolone.
 3. Continue with the rest of your medication as currently prescribed.
- These are the tests you need:
 1. urine test
 2. stool sample (poo) test
 3. blood test
- Please bring in a sample for the urine and stool test.
- Please book an appointment with us for your blood test.

What happens next

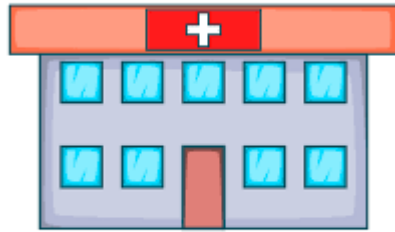
- I have referred you to gastroenterology as discussed today. We would expect the hospital to contact you within 2 months.
- We will contact you with your test results.
- You can also review your results in the NHSApp. If you don't have the app you can download it here: <https://www.nhs.uk/apps-library/nhs-app/>
- Your test results will be ready after 5 days.
- If your test results show anything unusual we will discuss this with you when we contact you.
- If your test results are normal, but you are still experiencing symptoms, please book another appointment to discuss this.
- Please let us know if things don't go according to plan.
- Contact the surgery if your symptoms get worse or you develop any other symptoms of concern as we discussed. When we are closed you can call 111 to speak to an Out of Hours GP.

- Richer consultations (more issues discussed)
- Improved patient experience
- Improved patient outcomes:
 - Health Status
 - Health Knowledge and Self-Care
 - Confidence in Health providers
 - Confidence in Health plan
- Follow-up rates

Study to develop intervention and test feasibility of an RCT

Pre-consultation PROM process

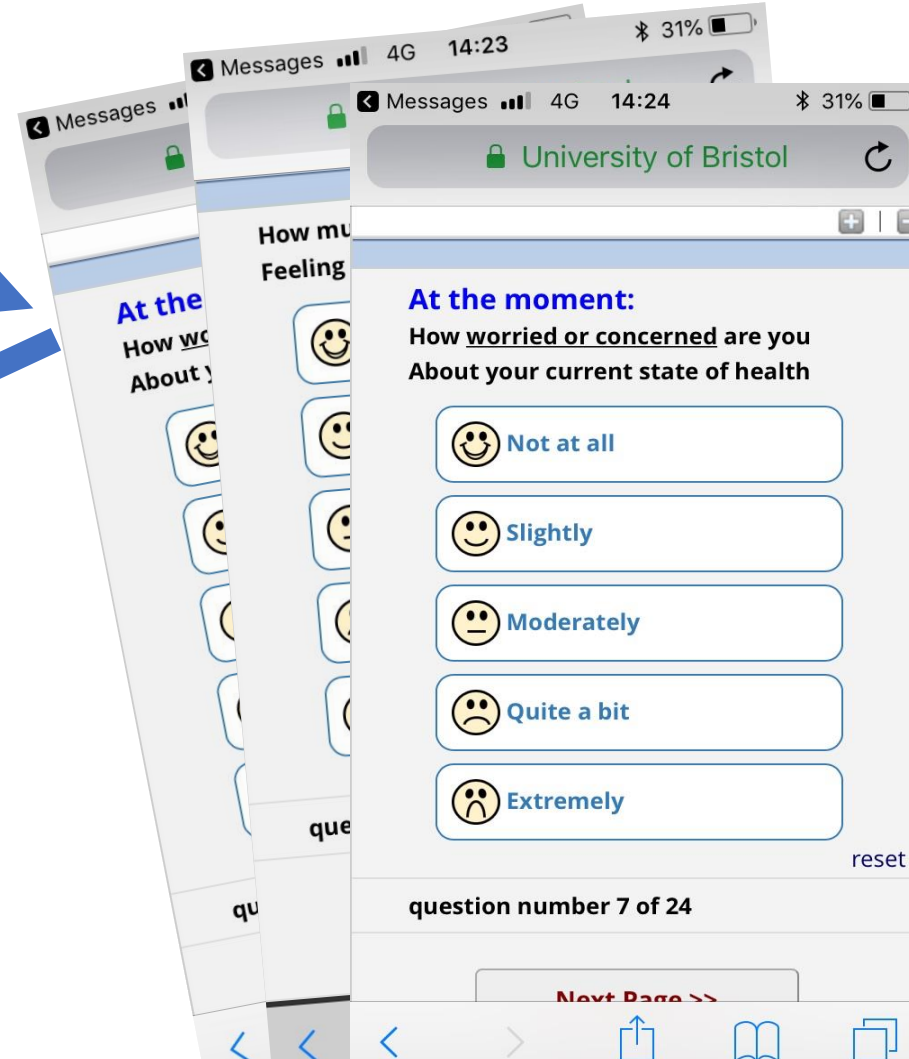
Health Centre



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Patient



Your patient gave the following reasons for attending:

- 1 Indigestion and heartburn
- 2 Night cough
- 3 Really sore left foot when walking

consulted about 1 - 2 times
new problem
new problem

The list below highlights some other problems your patient might have.

Green indicates no problems. Light green indicates slight problems. Amber is moderate and red is severe.

| | | | | | | |
|----|--------------------------------|-----|---|----|----------------------|--|
| 1 | Pain | (1) | 3 | ☹️ | Moderate | The pain is in the foot and only there when walking. I've had it for a month. |
| 2 | Other Physical Symptoms | (1) | 2 | 😊 | Slight | Cough and heartburn. Have had both for about two months. They mostly come at night. |
| 3 | Effect on normal activities | (1) | 2 | 😊 | Slight | I'm not sleeping with the cough and pain and I can't walk far and have stopped playing tennis. |
| 4 | Low mood / Anxiety | (2) | 2 | 😊 | Slight | Not low in mood or depressed. Slightly Anxious or stressed. |
| 5 | Concerns about serious illness | (1) | 5 | 😞 | Extreme | Moderately worried symptoms might indicate a serious illness. |
| 6 | Health Knowledge | (2) | 3 | 😊 | Somewhat lacking | Somewhat lacking in understanding of current health problems. Not lacking knowledge about how to prevent future health problems. |
| 7 | Support | (2) | 3 | 😊 | Somewhat lacking | Face to face conversation would help |
| 8 | Adherence to treatment | (1) | 1 | 😊 | All advice | |
| 9 | Healthy lifestyle | (1) | 1 | 😊 | All of the time | |
| 10 | Confidence in health plan | (1) | 3 | 😊 | Moderately confident | I don't think any of the medicine I've taken is working for the cough. I want to find out what it is. |

REMEMBER TO TELL THE PATIENT THAT YOU HAVE READ THIS REPORT. PLEASE ALSO MENTION THE FOLLOW-UP.

Blue signifies free-text written by the patient. Black text is based on patient's selected responses.

Fast forward to 2020

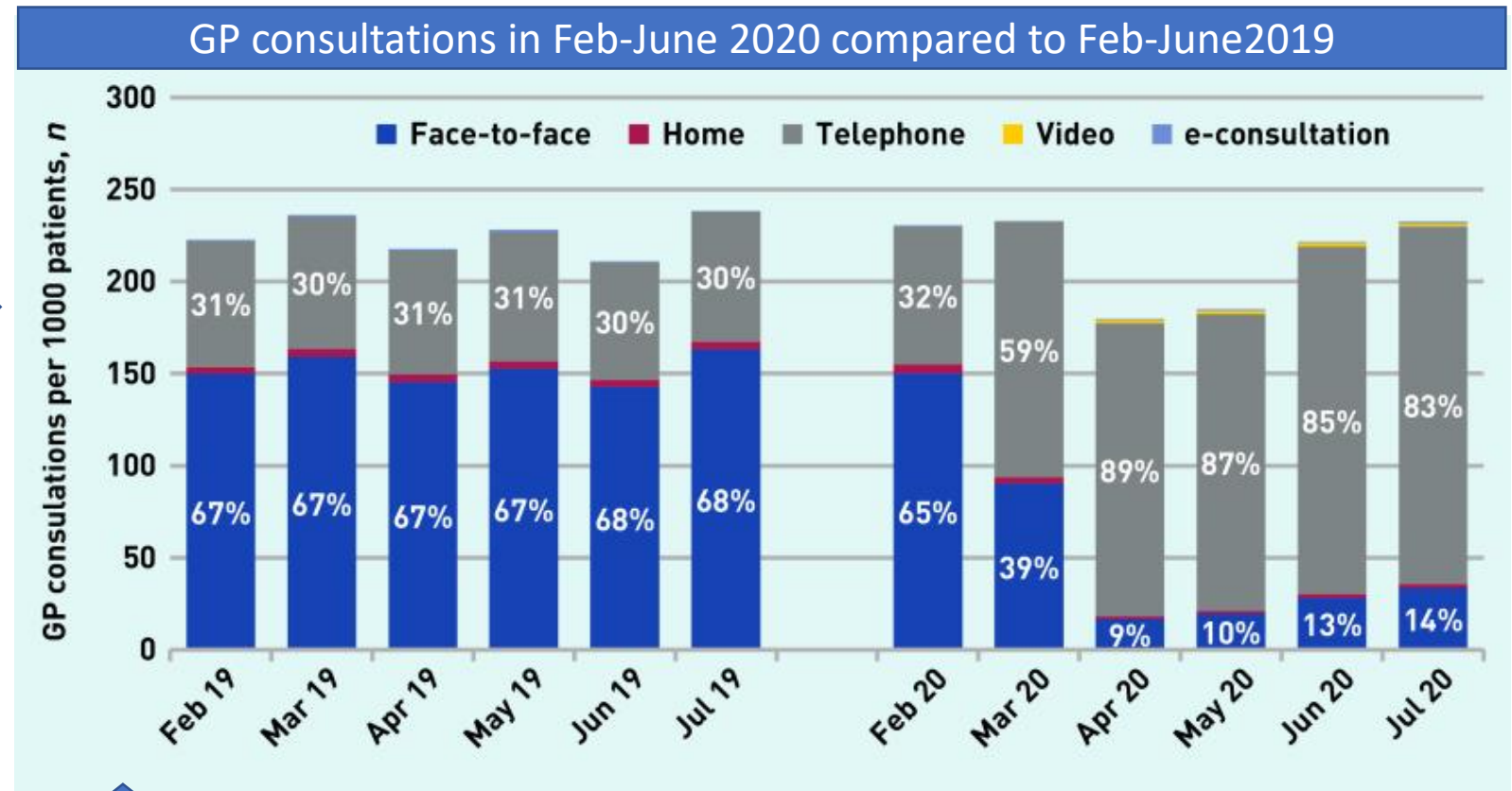
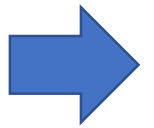
- COAC Intervention development is nearly complete.
- The COVID-19 pandemic starts
- The COAC study is paused.
- The way primary care works is transformed overnight.
 - GPs switch to 90% phone consultations
 - E-consultations (digital triage) is accelerated
 - Video consultations are made widely available in primary care for the first time

Rapid COVID-19 Intelligence (RAPCI) Study: Bristol, UK

GP consultation volume reduced by 17% in Apr 2020 from April 2019



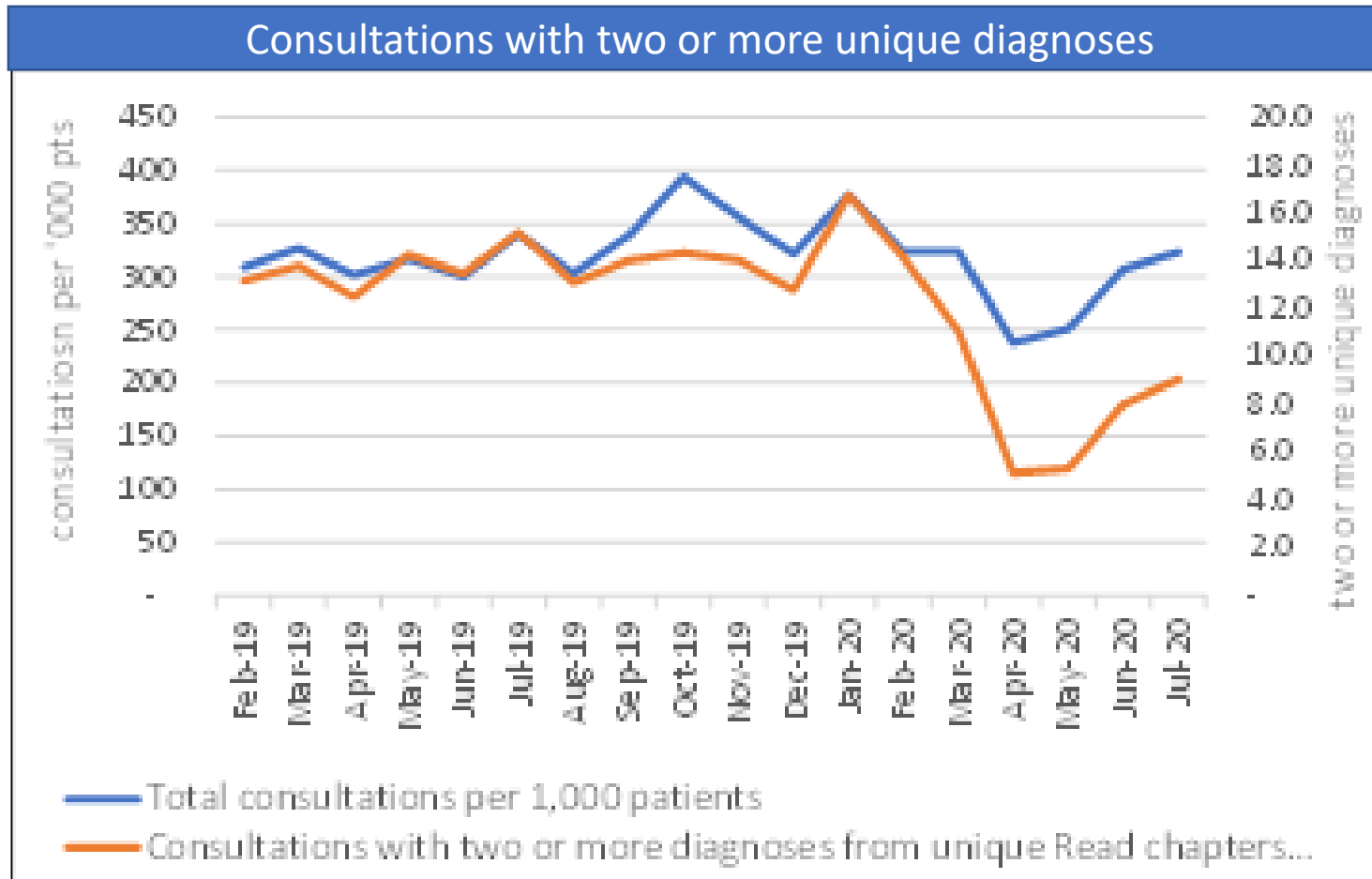
90% were by phone or video in April 2020 compared to 31% in April 2019



Consultation volumes recovered by July 2020, but high phone volumes remained

Publication: Implementation of remote consulting in UK primary care following the COVID-19 pandemic: a mixed-methods longitudinal study, Murphy et al, BJGP, 2021

RAPCI Study: changes in consultation content



Consultations with two or more unique diagnosis dropped substantially

RAPCI ad-hoc analysis: Set of GP practices with 350,000 patients

COAC: Context after COVID

- COAC recommences in October 2020 in this new context.
- Still relevant – perhaps more relevant than before
- As F2F increased through 2020 but still more telephone than before.
- Some patients find this overly transactional.
- GP patient survey shows sharp decline in 2021/22 for satisfaction and access.
- Some adjustments need to work in the new world of:
 - Mostly telephone appointments
 - Mostly same day appointments
 - Electronic consultations available in all family practices
- Started feasibility study – is an RCT of the intervention feasible?

COAC Study: Feasibility research questions

Feasibility study for a randomised control trial (RCT)

- Can the COAC intervention work in practice?
- Can we collect the necessary outcome data?
 - PROMS (PCOQ, EQ-5D, Patient experience)
 - Patient record (content of the consultation, number of follow-up consultations)
- What outcomes did patients and GPs say were achieved by what mechanisms?
- What was the context – what worked for whom under what circumstances?

Not a full RCT, so not measuring the outcome of interest

Patient interviews

Easier to raise difficult issues

Having to write down the information (about anxiety) before, meant I couldn't chicken out.

Felt more listened to

It's a bugbear of mine every time I leave the doctors, you can't really get it all out. But her knowing it already helped

Important that GPs read the form

Before I said things she brought them up to me and she could have only have brought that information up because she'd read the form.

Publication: *The person-based development and realist evaluation of a pre-consultation form*, Murphy et al, NIHR Open, 2022

Patient reflected in advance

It gave me the opportunity to think about what my symptoms were and how they were affecting my life.

Saved time

It sort of saved on time, because we were starting from a point where maybe it would nearly be the end of an appointment.

Improved communication

I felt that she was able to read what I'd put prior to actually speaking to me [on the phone] so she understood better.



Revealed mental health issues

I think mental health still has a stigma and people don't want to raise it often....this was a way for them to not have to be brave to tell you.

Easy to use

It didn't take me as long as thought it was going to... It was very easy to interpret and that traffic light colour coding helped. I would be very happy to use [it] use long-term.

Less useful for frequent attenders

I kind of know him too well for that to be helpful really.

Added structure

It enhanced the consultation because those things tend to come out anyway but they can come out in a more intrusive way.

Requires change in practice

It opened the consultation very nicely, rather than asking, 'how can I help you'? GP1
It is sort of feeling like you're trying to consult differently GP2

Useful for complex issues

I think patients with complex problems, definitely it can help you drill down to what's worrying them



Summary feasibility study findings

Feasibility study findings

- 27% take up. Very useful for both patients and GPs – preferred to triage forms
- Took less time to read than GPs expected. Patients thought they saved time.
- Low follow-up rates for data needed to run an RCT (36%)
- Generating the forms was administratively complex

Implementation

- Needed very careful implementation and iterative testing
 - Recruitment: SMS content, consent, PROM format
 - GPs: ensure report not missed, reading in advance, change in opening,
 - Admin: Making time, Timing messages, Manual attachment
 - Patients: Involve in design, build trust and nudge to completion
- Two parts of COAC should be treated as separate interventions

Implications

- The Primary Care Outcomes Questionnaire provided a good basis for the COAC pre-consultation questionnaire and served a dual purpose as a research PROM and communication PROM
- Not necessary to be combined with the summary report as both useful for different types of patient
- Full RCT was not feasible
 - Further development of IT needed
 - Alternative approach to collecting follow-up data
- **Concept showed that pre-consultation forms for primary care have considerable promise IF carefully implemented.**

Publication: The consultation open and close study: A feasibility study of a complex intervention, Murphy et al, NIHR Open 2022

Fast forward to 2023: Impact



Paper publication

Summary report being made available in one area in the UK health service



Pre-consultation process shared with developers

Examples of technology-supported PROMs in the NHS



SilverCloud[®]
by Amwell[®]

Routine outcome tracking

For young people receiving mental health support (SilverCloud) and people with long-term conditions (accuRX)



NHS
England



doccla



ascelus[™]

Remote monitoring

Heart failure (doccla) and cancer (ascelus) patients complete symptom trackers and QOL PROMs to help them self-manage and alert doctors to changes which require escalation



MALDABA
SOFTWARE DEVELOPMENT FOR HUMANS



accurx

Pre-consultation questionnaire For people with learning disabilities (Maldaba) and other long-term conditions (accurx) to support their annual health check

PROMS one part of technologies. Technologies one part of pathway change.

Examples of technology-supported PROMs in the NHS



Routine outcome tracking

For young people receiving mental health support (SilverCloud) and people with long-term conditions (accuRX)

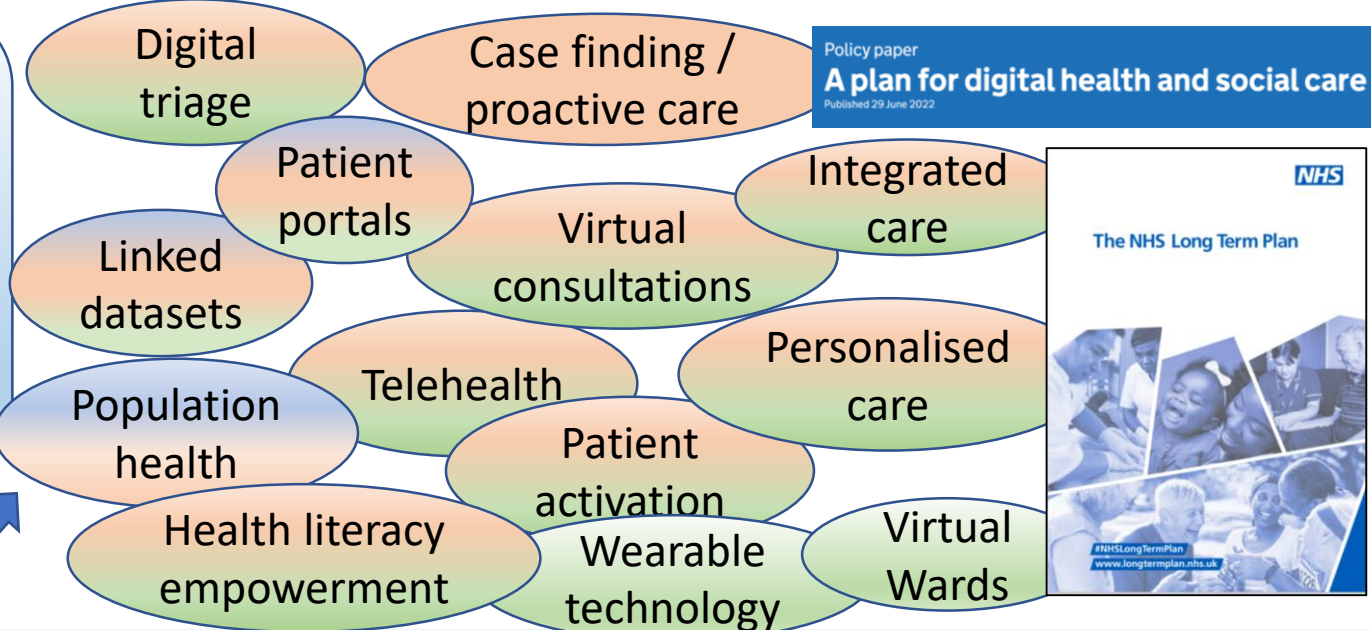


Remote monitoring

Heart failure (doccla) and cancer (ascelus) patients complete symptom trackers and QOL PROMs to help them self-manage and alert doctors to changes which require escalation



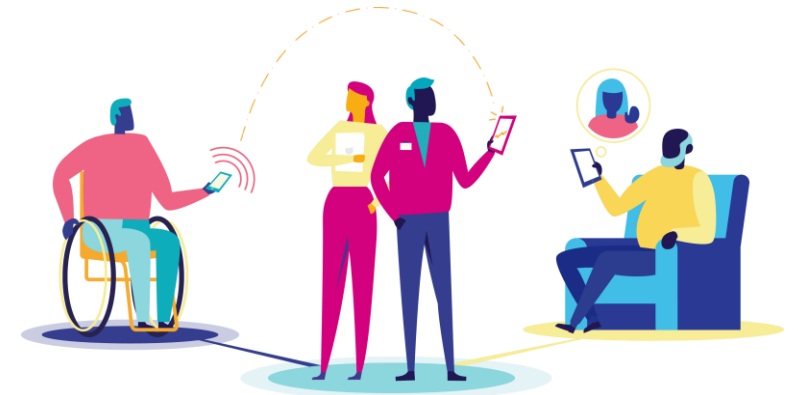
Pre-consultation questionnaire For people with learning disabilities (Maldaba) and other long-term conditions (accurx) to support their annual health check



PROMS one part of technologies. Technologies one part of pathway change.

The Future

- Scope for more use of digital PROMs to improve the consultation
- Whole system approach: digital PROMS are one component in a multi-faceted re-organisation of care.
- Need seamless integration with the patient record
- Need more research and evaluation on the benefits of using PROMs for clinical purposes
- Need rigorous real-world evaluations
- Doctor and administrator engagement and training is essential
- Patient choice and engagement in developing systems is key



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Participating GPs and patient participants

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