

IQT Silver Level

Identifying the individualised dental care needs of Special Care Dentistry patients:

A Quality Improvement Project

AOIFE NIC IOMHAIR

DCT1 DENTAL PUBLIC HEALTH AND SPECIAL CARE/COMMUNITY DENTISTRY

NORTH WALES COMMUNITY DENTAL SERVICE

Improving Quality Together

- National QI training programme for NHS staff in Wales.¹
 - **Goal:**
 - Develop QI capability within NHS Wales through use of a common language.
 - **Focus:**
 - Use data to inform improvement, based upon small tests of change.
 - **Three levels of IQT training:**
 - Bronze
 - SILVER
 - Gold

Learning Outcome 1

1. Understand how a health or social care organisation, individuals and others can benefit from quality improvement.

Assessment Criteria

1.1 Explain how a health or social care organisation, individuals and others benefit from quality improvement.

Quality?

*'the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.'*²

Six Dimensions of Healthcare Quality²

Safe

Avoiding harm to patients from care that is intended to help them.

Effective

Providing services based on evidence and which produce a clear benefit.

Patient-centred

Establishing a partnership between practitioners and patients to ensure care respects patients' needs and preferences.

Timely

Reducing waits and sometimes harmful delays.

Efficient

Avoiding waste.

Equitable

Providing care that does not vary in quality because of a person's characteristics.

Quality Improvement

*'...better patient experience and outcomes achieved through changing provider behaviour and organisation through using a systematic change method and strategies.'*³

*'The combined and unceasing efforts of everyone to make the changes that will lead to better patient outcomes (health), better system performance (care) and better professional development (learning).'*⁴

Quality Improvement

- No single definition
- **Overall:**
 - *Systematic approach that uses specific techniques to improve quality.*⁵
- **Key elements:**
 - 'change' (improvement)
 - 'method' (an approach with appropriate tools)
 - paying attention to the context
 - aim to achieve better outcomes

Benefits of Quality Improvement⁵ (1.1)

Organisation

- Increased financial efficiency
- Improved system performance
- Reduction in adverse incidents
- Improved patient safety
- Improved team-working/staff morale
- Positive organisational culture
- Increased consistency in performance

Individuals/Others

- Improved patient, staff and public safety
- Improved quality of patient care
- Increased efficiency and timeliness of services
- Increased personalisation of health-care
- Improved patient outcomes
- Consistency in quality and standard of healthcare

Learning Outcome 2

2. Understand how a health or social care organisation benefits from using a person-centred approach.

Assessment Criteria

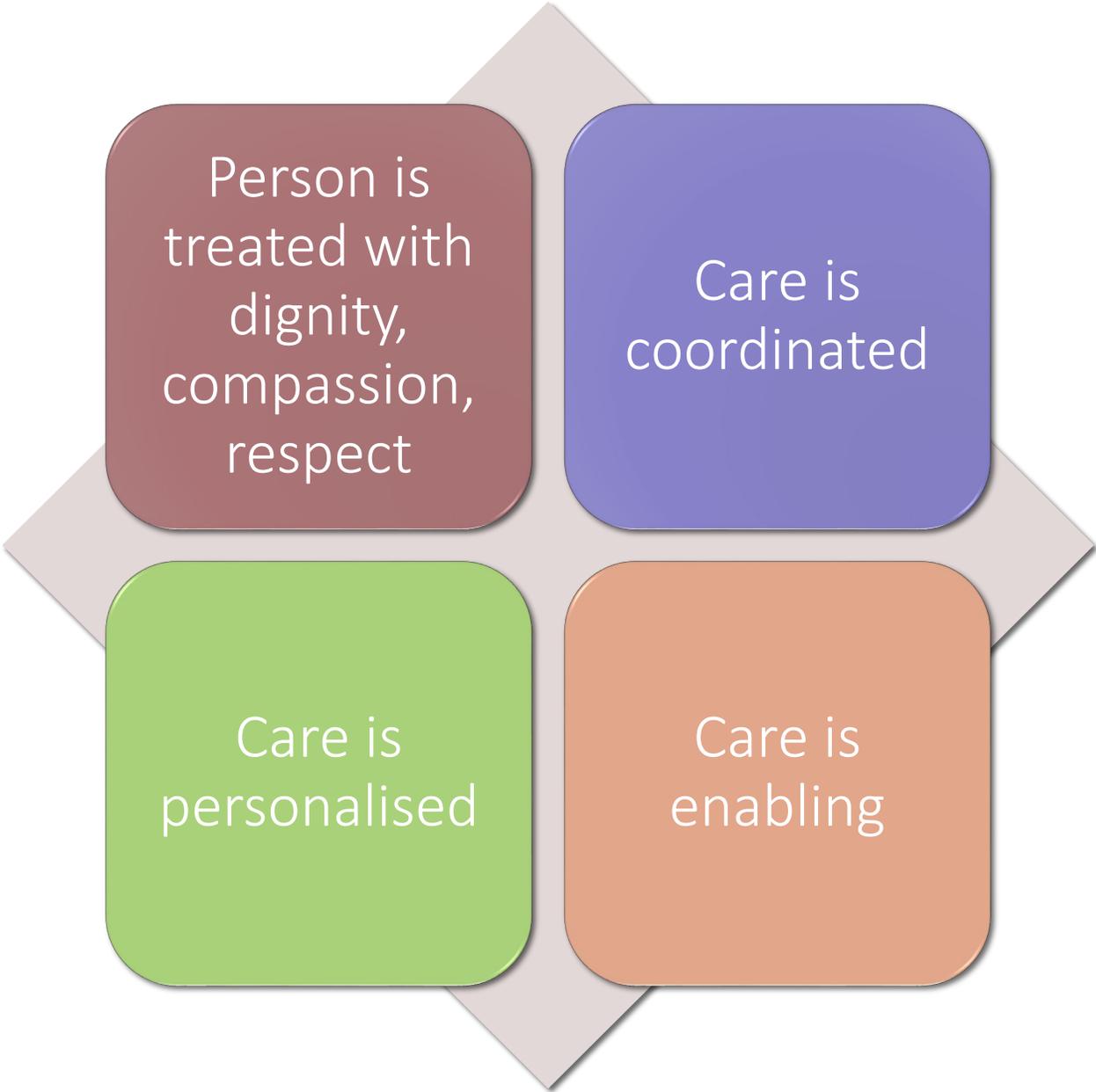
2.1 Explain how a health or social care organisation benefits from using a person-centred approach.

Person-Centred Care⁶

- Refers to many different principles and activities.
- No single agreed definition of the concept.
- Still an emerging and evolving area.
- Person-centred?-what it looks like will depend on the needs, circumstances and preferences of the individual receiving care.

The Principles of Person- Centred Care

The Health Foundation⁶



Person is
treated with
dignity,
compassion,
respect

Care is
coordinated

Care is
personalised

Care is
enabling

The Principles of Person- Centred Care

*The Quality
Improvement Guide⁷*

Users identifying areas that need to change

Improvement in decision making and respect for patient preferences

Empathy, dignity, compassion and emotional support

Clear, comprehensible and timely communication

Fast and smooth access to optimal care

Education and empowerment to manage their conditions and care for themselves

Benefits of a Person-Centred Approach⁶⁻⁸ (2.1)





Is it ethical...?⁶

To fail to offer people dignity, compassion or respect?

For care to be poorly coordinated?

To treat patients as a set of diagnoses or symptoms, without taking into account their wider emotional, social and practical needs or those of their carers?

To maintain dependency, so that patients fail to recognise and develop their own strengths and abilities and live an independent and fulfilling life?

Learning Outcome 3

3. Understand the **principles** of quality improvement

Assessment Criteria

3.1 Explain the principles of quality improvement in a health and social care organisation.

3.2 Identify a range of quality improvement methodologies

Data and measurement for improvement

Understanding the process

Improving reliability

Demand, capacity and flow

Enthusiasing, involving and engaging staff

Involving patients and co-design

Principles of Quality Improvement⁵

(3.1)



Learning Outcome 4

4. Understand the **principles** of Human Factors

Assessment Criteria

4.1 Explain how using human factors methodologies improves;

1. Quality
2. Reliability
3. Team-working



Human

Factors⁹

Human Factors in Healthcare

‘Enhancing clinical performance through an understanding of the effects of teamwork, tasks, equipment, workspace, culture, organisations on human behaviour and abilities, and application of that knowledge in clinical settings.’¹⁰

Focus on optimising human performance through better understanding the behaviour of individuals, their interactions with each other and their environment.



By acknowledging human limitations, offer ways to minimise and mitigate human frailties, so reducing medical error and its consequences.



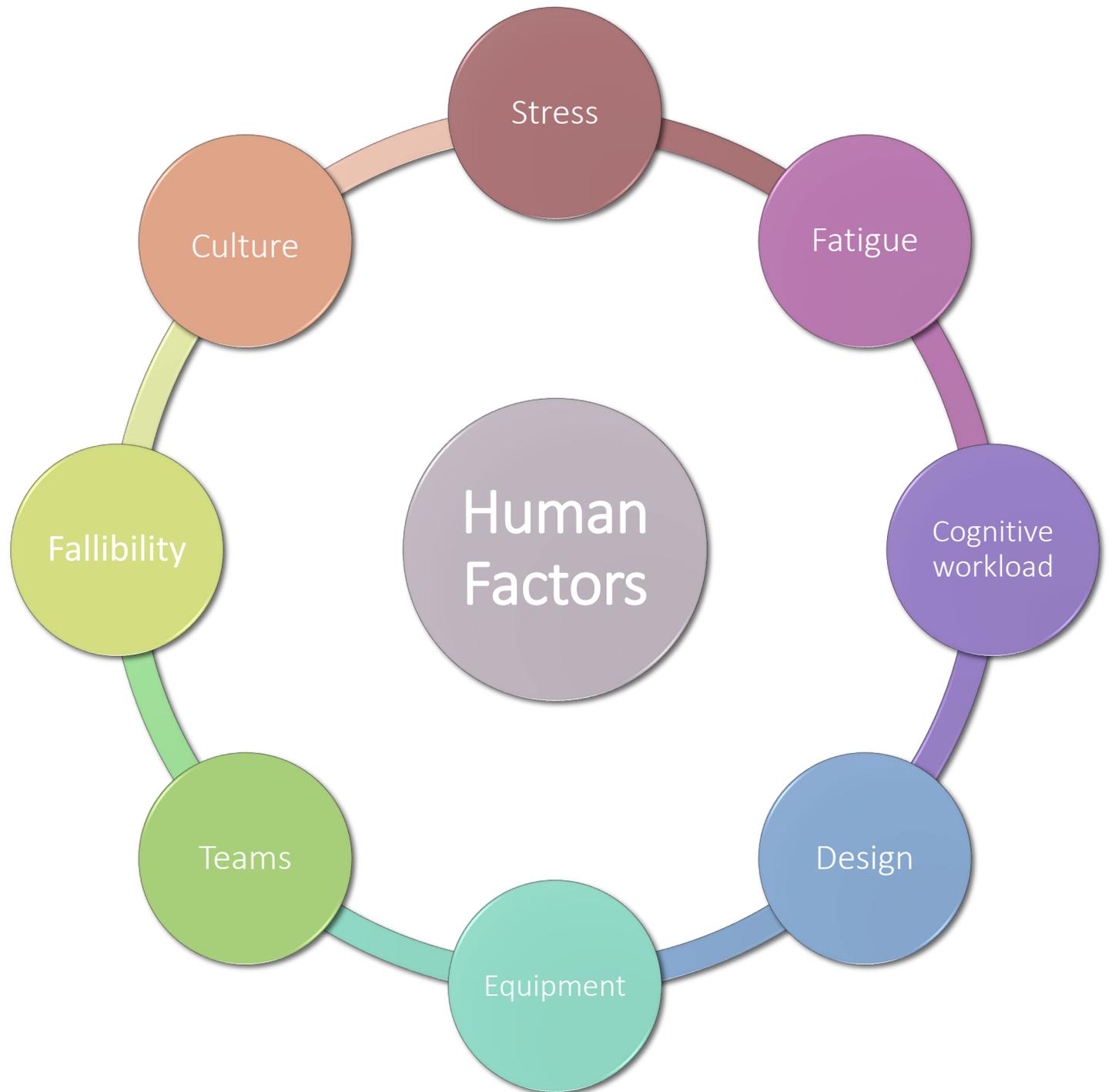
System-wide adoption of these concepts offers a unique opportunity to support cultural change and empower the NHS to put patient safety and clinical excellence at its heart.



Can be applied in the identification, assessment and management of patient safety risks, and in the analysis of incidents to identify learning and corrective actions.

Principles of Human Factors in Healthcare¹¹

Managing Risk in Healthcare¹²





Human Factors Approaches (WHO)

1

Avoid reliance
on memory

2

Make things
visible

3

Review and
simplify
processes

4

Standardise
common
processes and
procedures

5

Routinely use
checklists

6

Decrease the
reliance on
vigilance

Developing healthcare systems that are founded on human factors principles can positively impact on *quality, reliability, team-working* and *patient safety* by:
(4.1)

○ reduction of harm through better design of healthcare systems and equipment

○ understanding why healthcare staff make errors and how 'systems factors' threaten patient safety

○ improving the patient safety culture of teams and organisations

○ enhancing teamwork and improving communication between healthcare staff.

○ improving how we learn when things go wrong by improving current approaches to incident investigation

predicting 'what could go wrong' in the design of new hospitals and healthcare processes

Learning Outcome 5

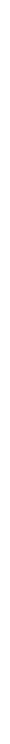
5. Be able to use quality improvement methodologies to identify an area for improvement.

Assessment Criteria

5.1 Produce a quality improvement plan which includes;

- Using a range of improvement tools to identify an area in need of improvement
- Defining an improvement aim
- Establishing a baseline of current performance in the area

An area
needing
improvement?



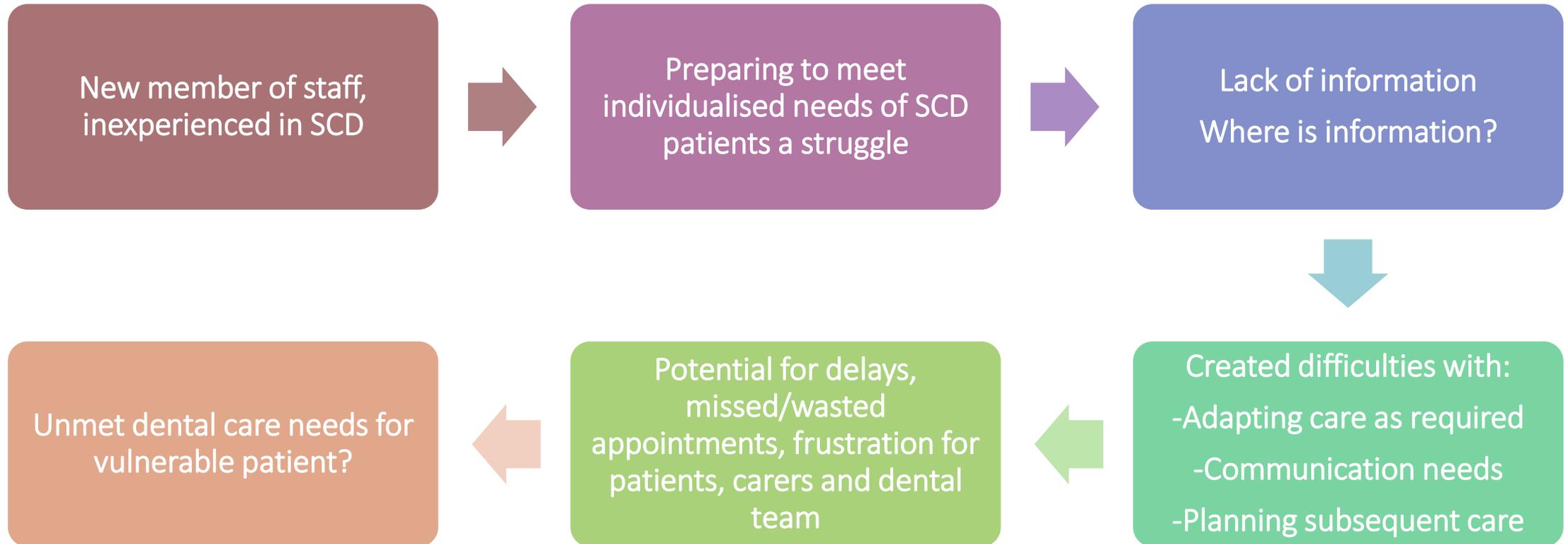
Special Care Dentistry

'...provides preventive and treatment oral care services for people who are unable to accept routine dental care because of some physical, intellectual, medical, emotional, sensory, mental or social impairment or a combination of these factors.'

*'...requires a holistic approach that is specialist led in order to meet the complex requirements of people with impairments.'*¹³

The problem...

Special Care Dentistry

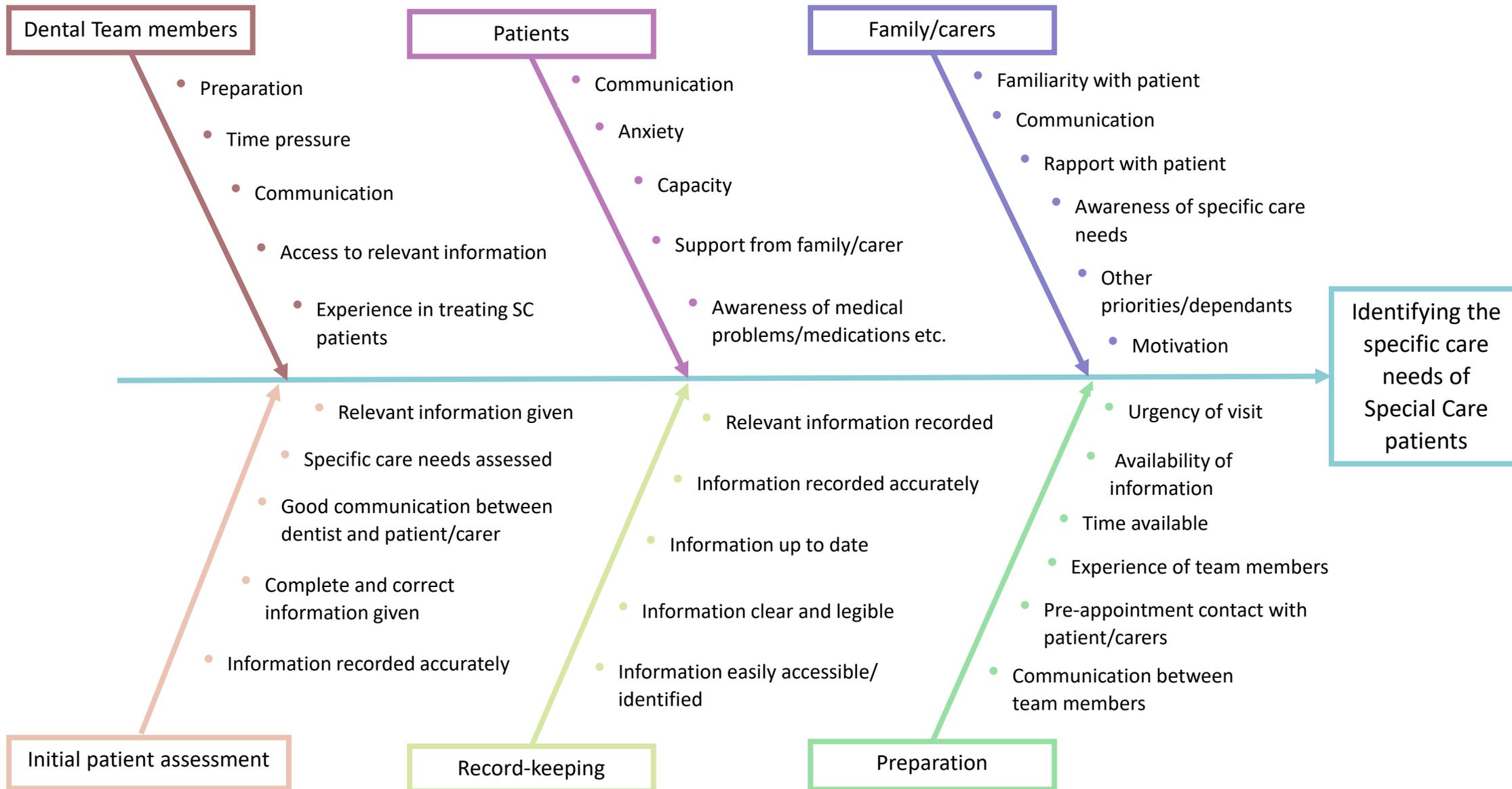


Identifying the
real issue...



Root
Cause
Analysis:
The 5 Whys

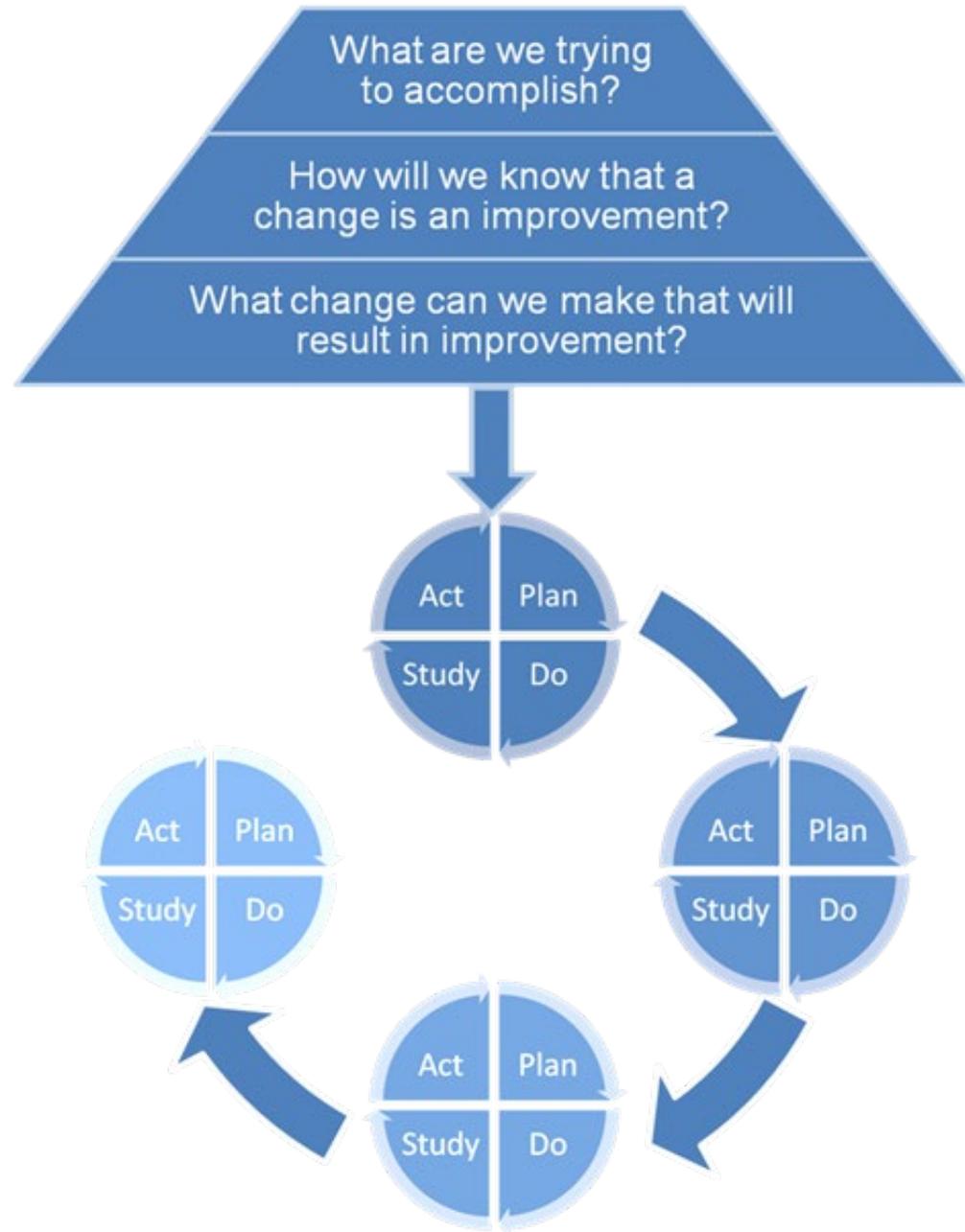




The Real Issue?

Lack of a universal protocol for assessing and documenting the specific dental care needs and necessary adaptations to care for Special Care Dentistry patients, to allow the sharing of information and appropriate planning of care.

Planning the Quality Improvement^{1,5,7} (5.1)



Step 1: What are we trying to accomplish? (5.1)

- Efficient and effective identification of the specific dental care needs of Special Care Dentistry patients from information available in the clinical record

Why?

- To enable appropriate planning and preparation for the provision of care
- To ensure the delivery of safe and appropriate care
- To ensure that patient-specific needs are met
- To ensure that equitable care is provided in a timely manner, regardless of potential barriers or additional needs
- To ensure the smooth running of clinics
- To reduce the potential for delays, missed or wasted appointments, frustration for patients, carers and members of the dental team and unmet dental care needs for vulnerable patients.

Step 2: How will we know that a change is an improvement? (5.1)

Setting up measures

- Establishing a baseline against which to measure whether change resulted in improvement.

To enable measurement:

- a standardised criterion of the information which should be assessed for and included in the clinical record of a SC patient would be established.
- performance could then be measured against this standard.

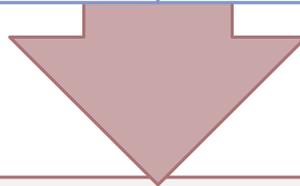
10 key areas identified as being of importance to the effective dental care of SCD patients;

- Collaboration with SCD specialists
- Literature review^{14,15,16}

The Standardised Criterion

Information on each of the following ten areas was suggested as being of importance to the effective dental care of SCD patients:

Next of Kin/Family contact details	Care Group	Medical History	Social circumstances	Transport	Communication	Mobility	Sensory impairments	Oral hygiene considerations	Dental treatment considerations
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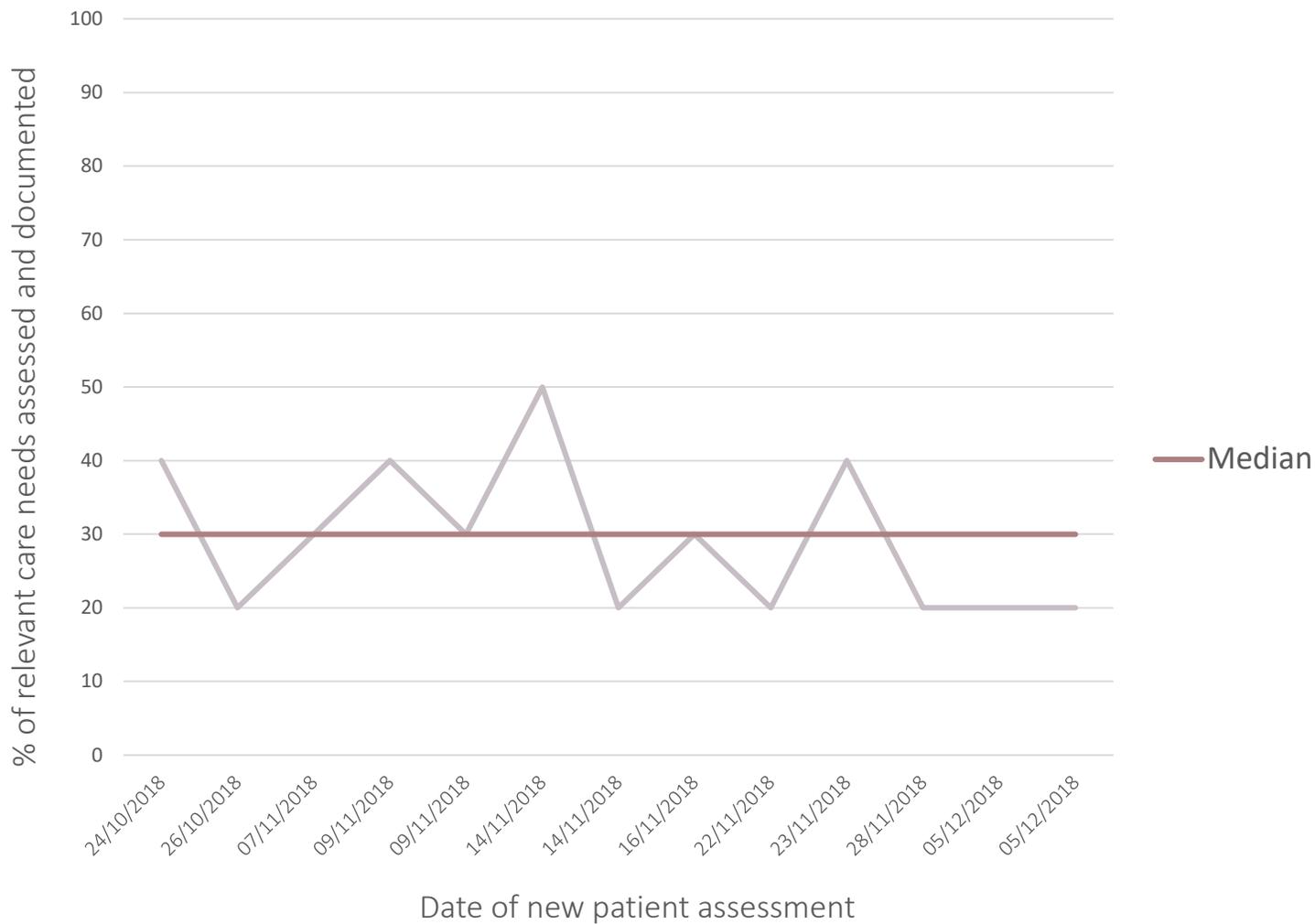
It was felt that the ready availability of such information would allow easy identification of any patient-specific dental care needs, the necessary adaptations to care required and would aid the provision of safe, effective, equitable, efficient, timely and patient-centred care.

Measures

Process measures	Outcome measures	Balancing measures
<ul style="list-style-type: none">○ % of relevant care needs assessed for and documented in the clinical record during new patient assessments (as compared to standard identified)	<ul style="list-style-type: none">○ NA for specific project○ Could potentially include waiting times, missed/rescheduled appointments○ ??	<ul style="list-style-type: none">○ ??Increased time required to complete a new patient assessment
<ul style="list-style-type: none">○ Time taken to analyse the clinical record to identify the relevant information	<ul style="list-style-type: none">○ NA for specific project○ Could potentially include waiting times/delays	<ul style="list-style-type: none">○ ??Increased time required to complete a new patient assessment

Run chart:

% of relevant care needs assessed for and documented during new patient assessments at baseline



Baseline performance

Statistical variation (7.2)

Common Cause Variation

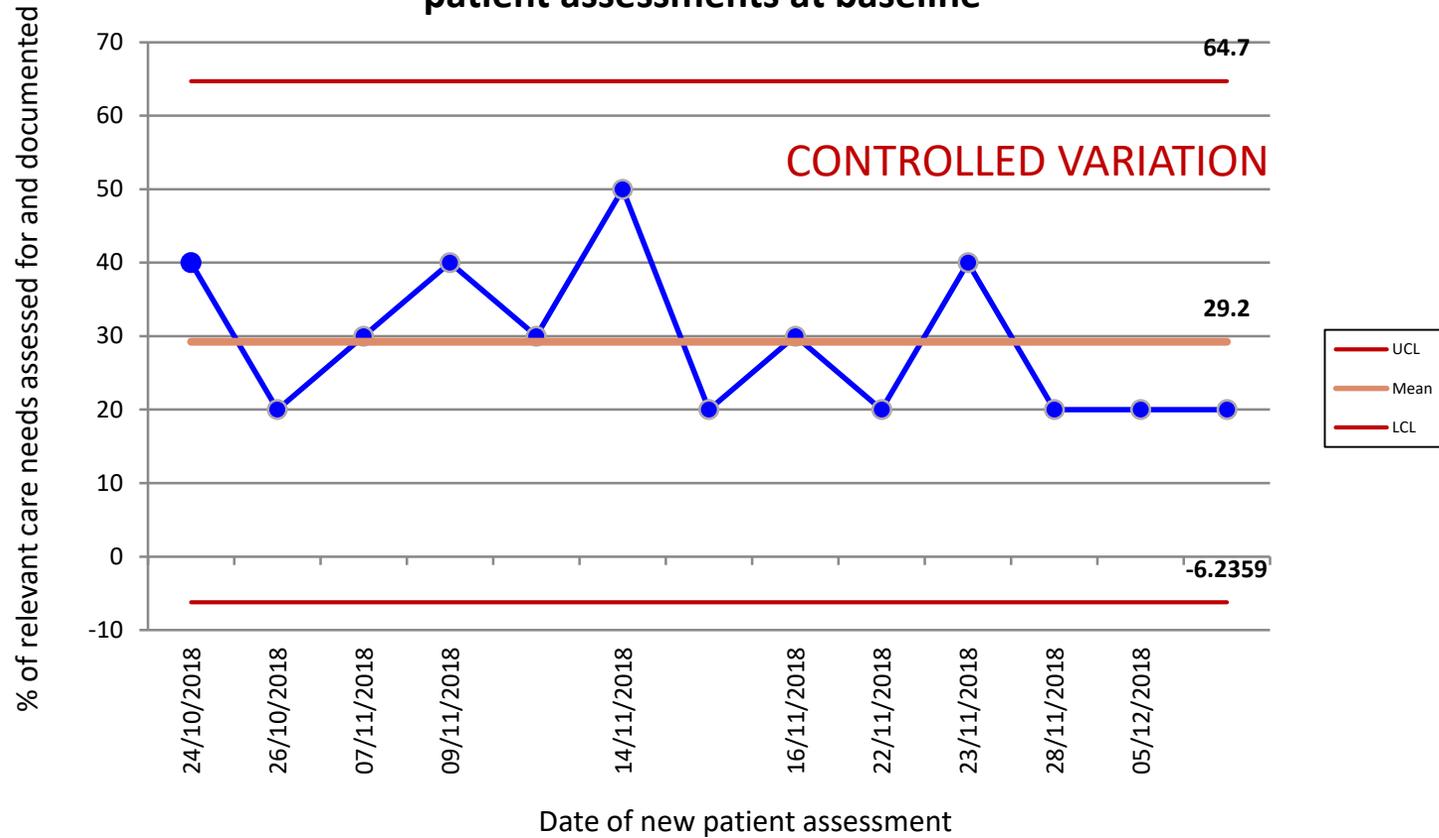
- Fluctuation caused by unknown factors resulting in a steady but random distribution of output around the average of the data.
- Measure of the process potential, or how well the process can perform when special cause variation removed.

Special Cause Variation

- Shift in output caused by a specific factor such as environmental conditions or process input parameters.
- Can be accounted for directly and potentially removed and is a measure of process control.

SPC Chart:

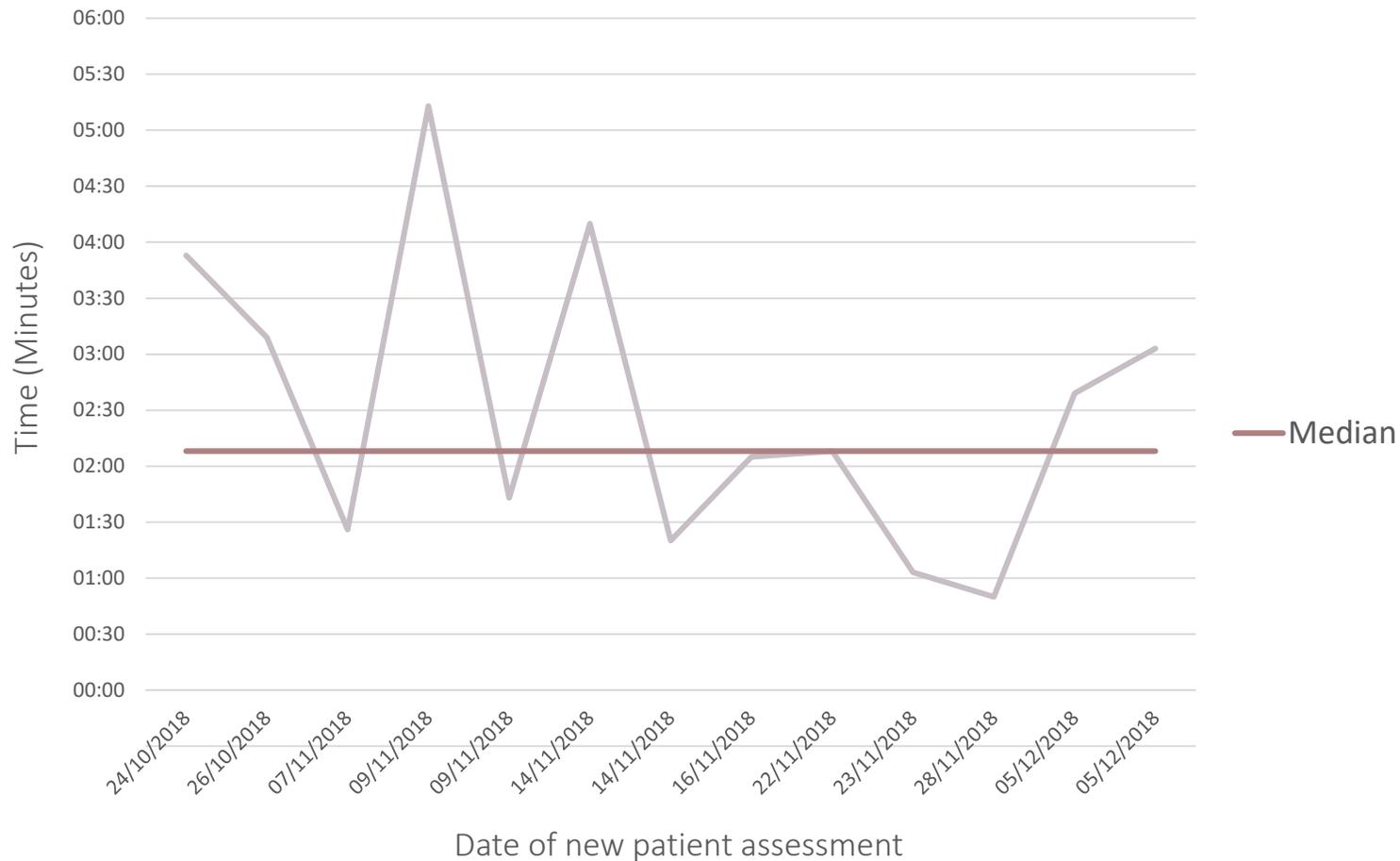
% of relevant care needs assessed for and documented during new patient assessments at baseline



Baseline
performance

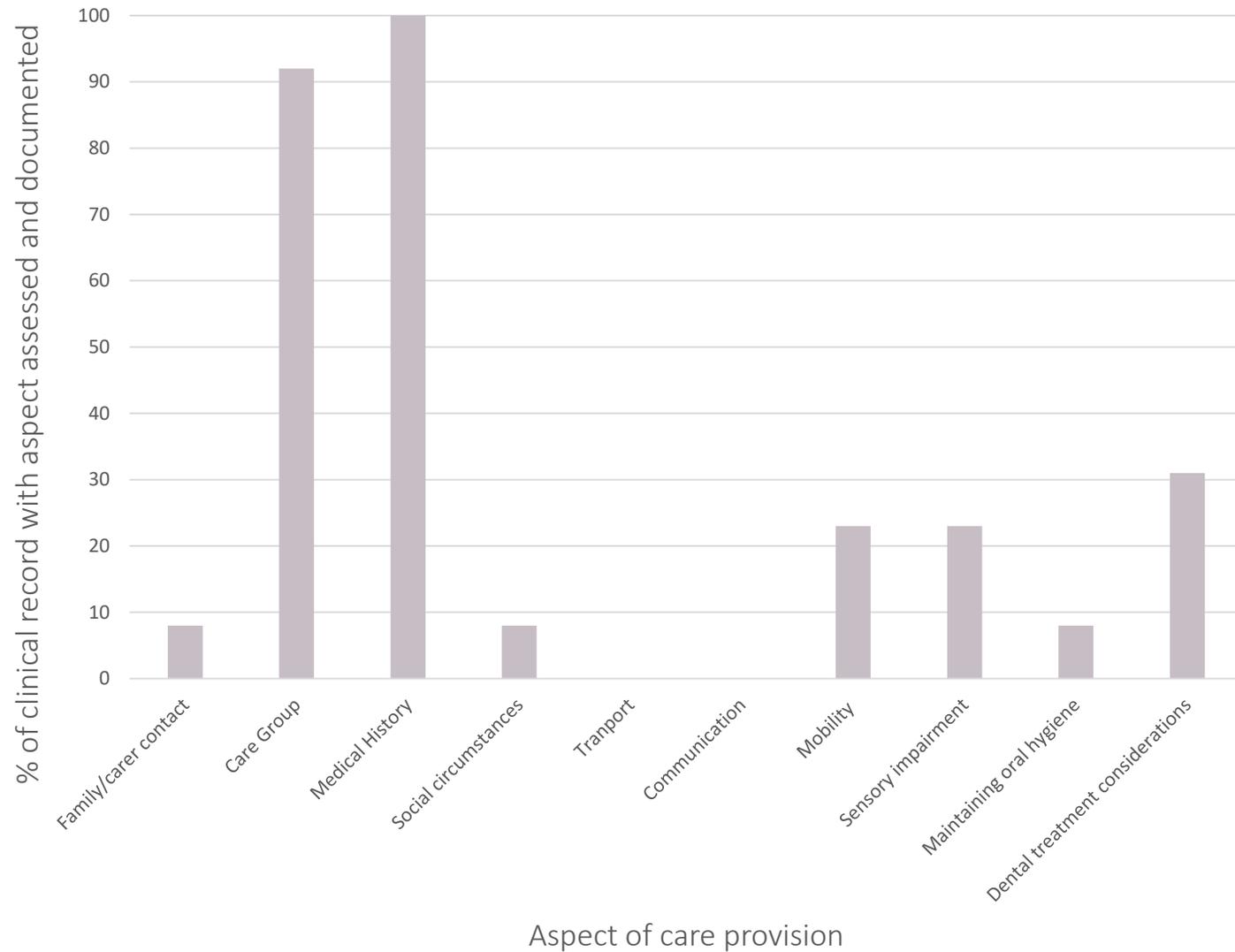
Run chart:

Time taken to assess each patient record in attempting to identify the relevant information at baseline



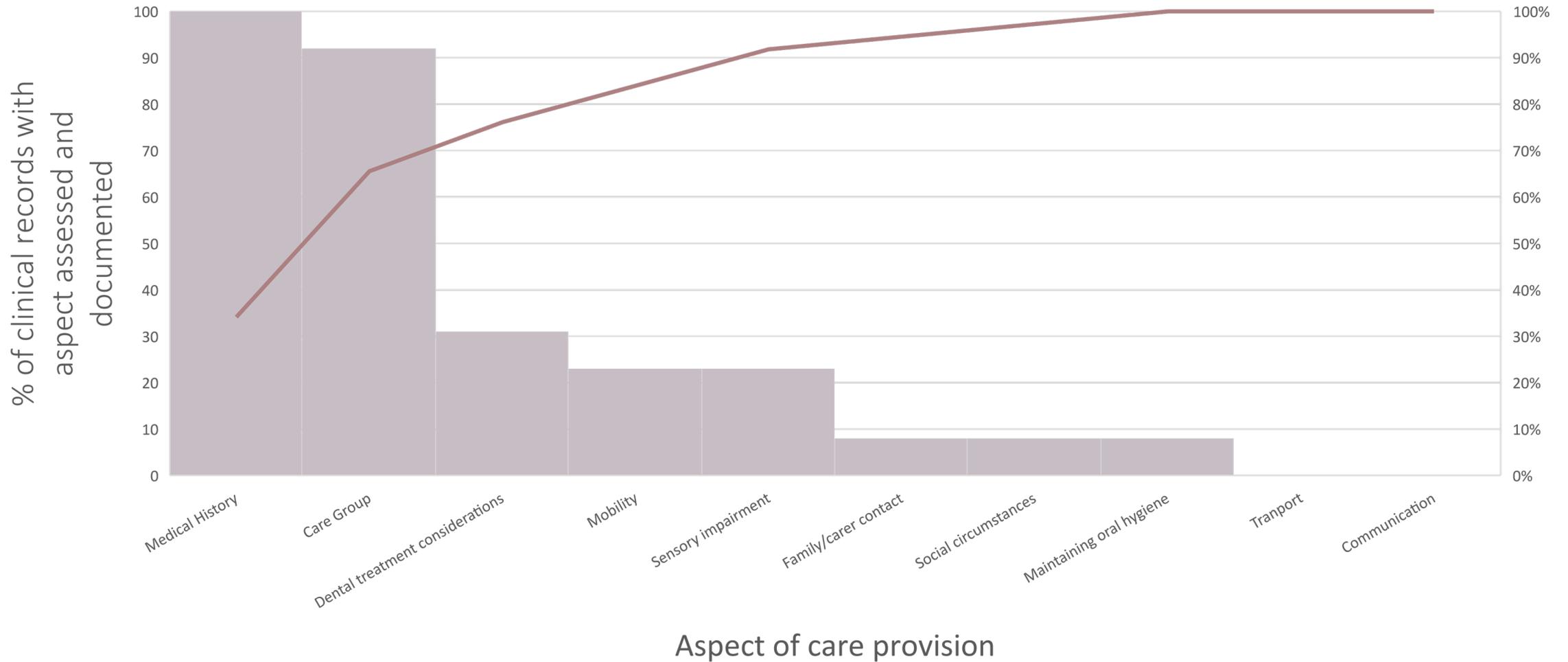
Baseline performance

Chart to show the % of clinical records with each aspect assessed and documented

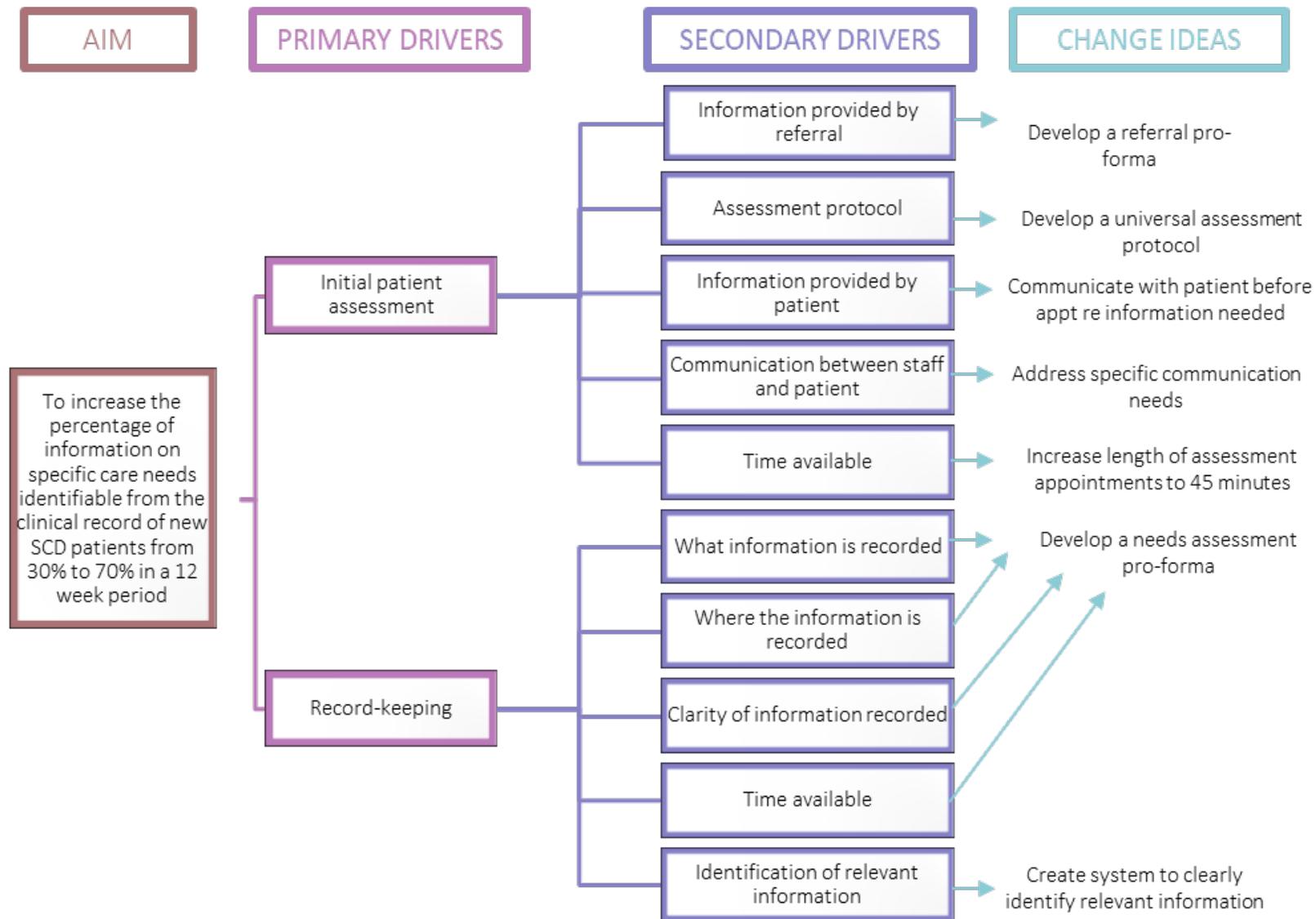


Baseline performance

Pareto chart to show the aspects of care most frequently to least frequently assessed and documented during new SCD patient assessments



Step 3:
What change can we make that will result in improvement?¹⁷
(5.1)



Identifying and selecting changes...

Options for Change

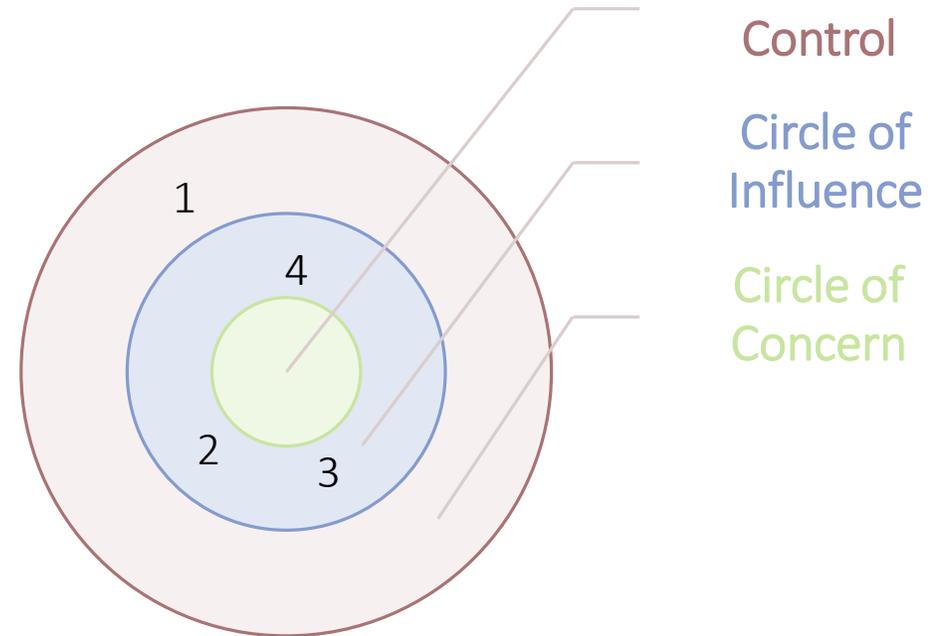
Option	Change	Advantages	Disadvantages
1.	<i>Referral pro-forma</i>	<ul style="list-style-type: none"> Idea of care needs before patient attends for assessment Reduced time required for assessment in SC clinic 	<ul style="list-style-type: none"> Referrers unwilling to spend additional time Referrers not always dental professionals SC dentists best placed to assess specific needs Pro-forma may not be fully completed
2.	<i>Universal Assessment Protocol</i>	<ul style="list-style-type: none"> Consistency in needs assessed during new SC patient assessment 	<ul style="list-style-type: none"> May not be enforced/used May not be used completely/correctly Information may not be recorded
3.	<i>Increased length of assessment appointments</i>	<ul style="list-style-type: none"> Allows time for more thorough assessment and recording of information 	<ul style="list-style-type: none"> Increased demand on service if less patients being seen per day Does not guarantee full assessment or recording of information Additional time may not be necessary for all patients, therefore ?waste of resources
4.	<i>Needs Assessment Pro-forma</i>	<ul style="list-style-type: none"> Prompts assessment of all relevant care needs Information recorded in one identifiable place 	<ul style="list-style-type: none"> Increased time to complete pro-forma Increased paperwork burden Increased administration duties

Selecting a Change

Ease-Benefit Matrix

Easy	4	2, 3
Difficult		1
	High Benefit	Low Benefit

Circle of Influence



Patient Needs Assessment Tool

 **GIG NHS WALES** Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

Special Care Dentistry
North Wales Community Dental Service

I Patient Needs Assessment

Personal Details

Name: _____ DOB: _____

Care group: Learning Disability Physical Disability Medically compromised
 Mental health Phobic Other

Weight: _____ Height: _____ BM: _____

Bariatric facilities required: Yes No

Nominated family contact: _____

Contact number: _____

Social Circumstances

Lives: Alone With partner With family/friends In residential care Other

If other, give details: _____

Transport: Ambulance transport Drives Lift with family/friends Taxi Other

If other, give details: _____

Attends: Alone With family member With carer Other

If other, give details: _____

Preferred appointment time:

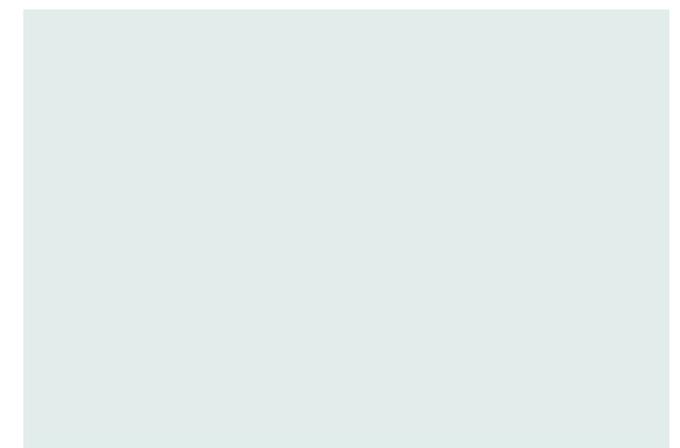
Monday Tuesday Wednesday Thursday Friday AM PM

Medical History

Medical issues of significance to treatment planning:

Medications of significance to treatment planning:

Anti-platelets/anti-coagulants Bisphosphonates Steroids Insulin Other



 **GIG NHS WALES** Bwrdd Iechyd Prifysgol Betsi Cadwaladr University Health Board

Special Care Dentistry
North Wales Community Dental Service

Mobility

Independent Requires physical assistance Uses mobility aid e.g. Zimmer Wheelchair bound

Requires assistance to transfer to dental chair: Yes No

Details: _____

Communication

Difficulty expressing themselves: Yes No

Difficulty understanding others: Yes No

Details: _____

Communication: Verbal Makaton PECS Electronic device Other

If other, give details: _____

Sensory impairment e.g. sight/hearing loss: Yes No

Details: _____

Dental treatment considerations:

Capacity: Has capacity Fluctuating capacity Lacking capacity

Dental chair positioning: Upright Semi-supine Supine

Supports needed: _____

Swallow issues: Yes No

Details: _____

Oral health maintenance issues e.g. dietary issues, dexterity for OH:

Other relevant information e.g. challenging behaviours, anxieties:

Making the Aim SMART

Specific:

- To increase the percentage of information on specific care needs identifiable from the clinical record of SCD patients following a new patient assessment from 30% to 70% in a 12-week period.
- To reduce the time taken to analyse the clinical record to identify the relevant information from an average of two minutes to less than one minute.

Measurable:

- % of information on specific care needs identifiable from the clinical record of SCD patients following a new patient assessment
- Time taken to analyse the clinical record to identify the relevant information

Achievable:

- Data collection period appropriate to time-period available for QIP

Realistic:

- May not see an improvement immediately, may need a second PDSA cycle

Time-bound:

- 12-week period for data collection following implementation of 1st change (07/12/18-01/03/19)

What are we trying to accomplish?

- Efficient and effective identification of the specific care needs of Special Care Dentistry patients from information available in the clinical record

How will we know that a change is an improvement?

- Increased percentage of information on specific dental care needs identifiable from the clinical record of SCD patients
- Reduced time take to identify information on the ten key areas

What change can we make that will result in an improvement?

- Introduction of a Patient Needs Assessment Tool

Quality Improvement Plan Summary

(5.1)

Learning Outcome 6

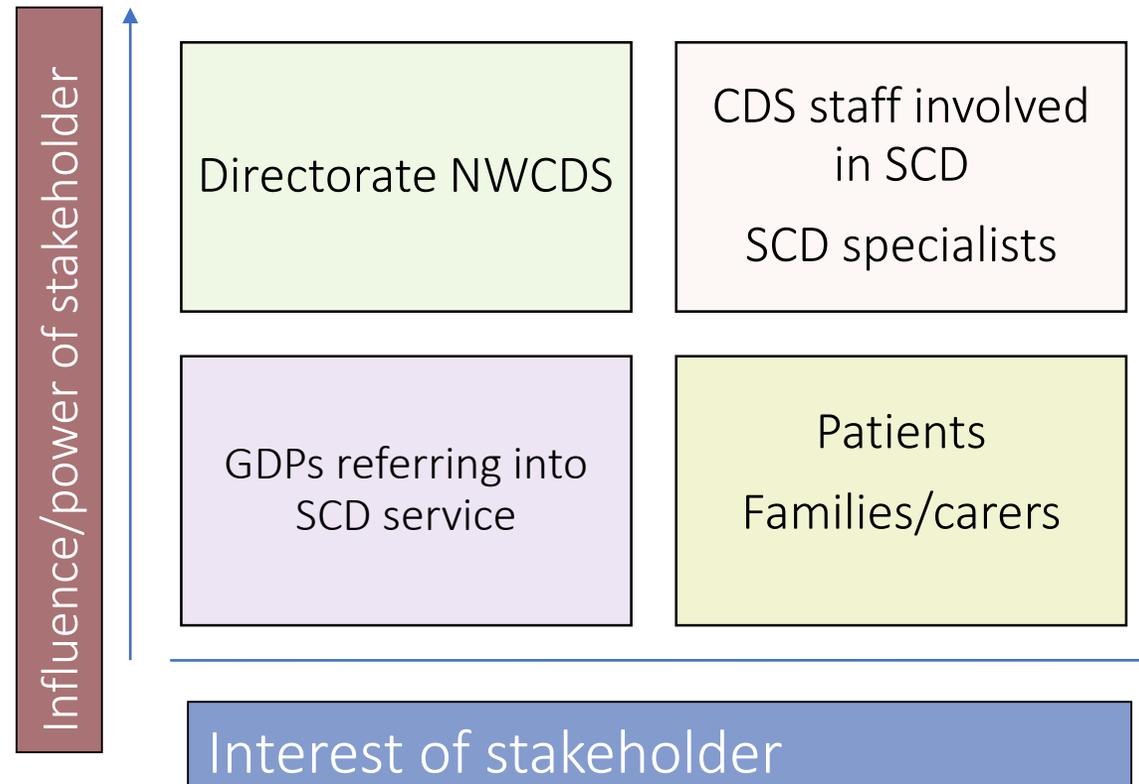
6. Involve others in quality improvement

Assessment Criteria

6.1 Explain how stakeholders were identified for the quality improvement project

6.2 Explain how stakeholders were involved throughout the project

Stakeholder Identification and Involvement (6.1, 6.2)



Person or group	Role in project	How they were involved
Dentist	<ul style="list-style-type: none"> ○ Completion of PNA pro-forma ○ Using PNA pro-forma to identify patient-specific needs and plan appropriate care ○ Updating/adding information to PNA pro-forma 	<ul style="list-style-type: none"> ○ Planning and design of PNA pro-forma ○ Clinical Governance meeting ○ Ongoing feedback
DCPs	<ul style="list-style-type: none"> ○ Using PNA pro-forma to identify patient-specific needs and plan appropriate care ○ Updating/adding information to pro-forma 	<ul style="list-style-type: none"> ○ Individual discussions ○ Clinical Governance meeting ○ Ongoing feedback
Reception staff	<ul style="list-style-type: none"> ○ Checking supply of, printing and distributing copies of PNA pro-formas to surgeries 	<ul style="list-style-type: none"> ○ Individual discussions ○ Clinical Governance meeting ○ Ongoing feedback
Patients/Carers	<ul style="list-style-type: none"> ○ Providing the relevant information during completion of PNA pro-forma 	<ul style="list-style-type: none"> ○ Discussion regarding purpose of PNA pro-forma and how the information will be used ○ Patient feedback
Directorate NWCDS	<ul style="list-style-type: none"> ○ Approval and support for project ○ Input required for expansion of project 	<ul style="list-style-type: none"> ○ Approval sought ○ Progress updates ○ Advised of changes required at higher level of influence to expand project and ensure sustainability
GDPs referring into SCD service	<ul style="list-style-type: none"> ○ No role in current project/changes but potential for involvement with further changes 	<ul style="list-style-type: none"> ○ NA

Learning Outcome 7

7. Use a model for improvement to implement a quality improvement in a health or social care organisation

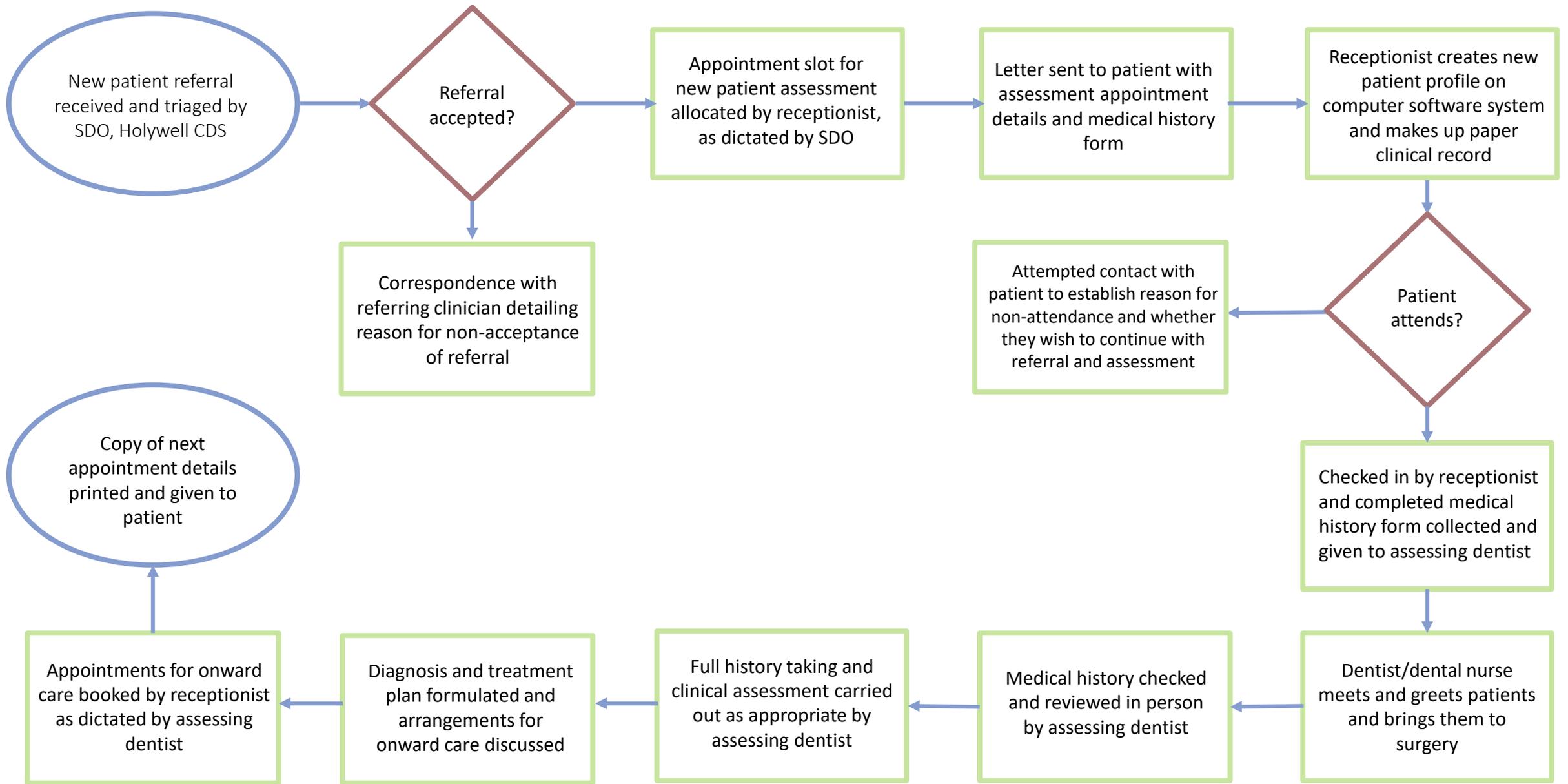
Assessment Criteria

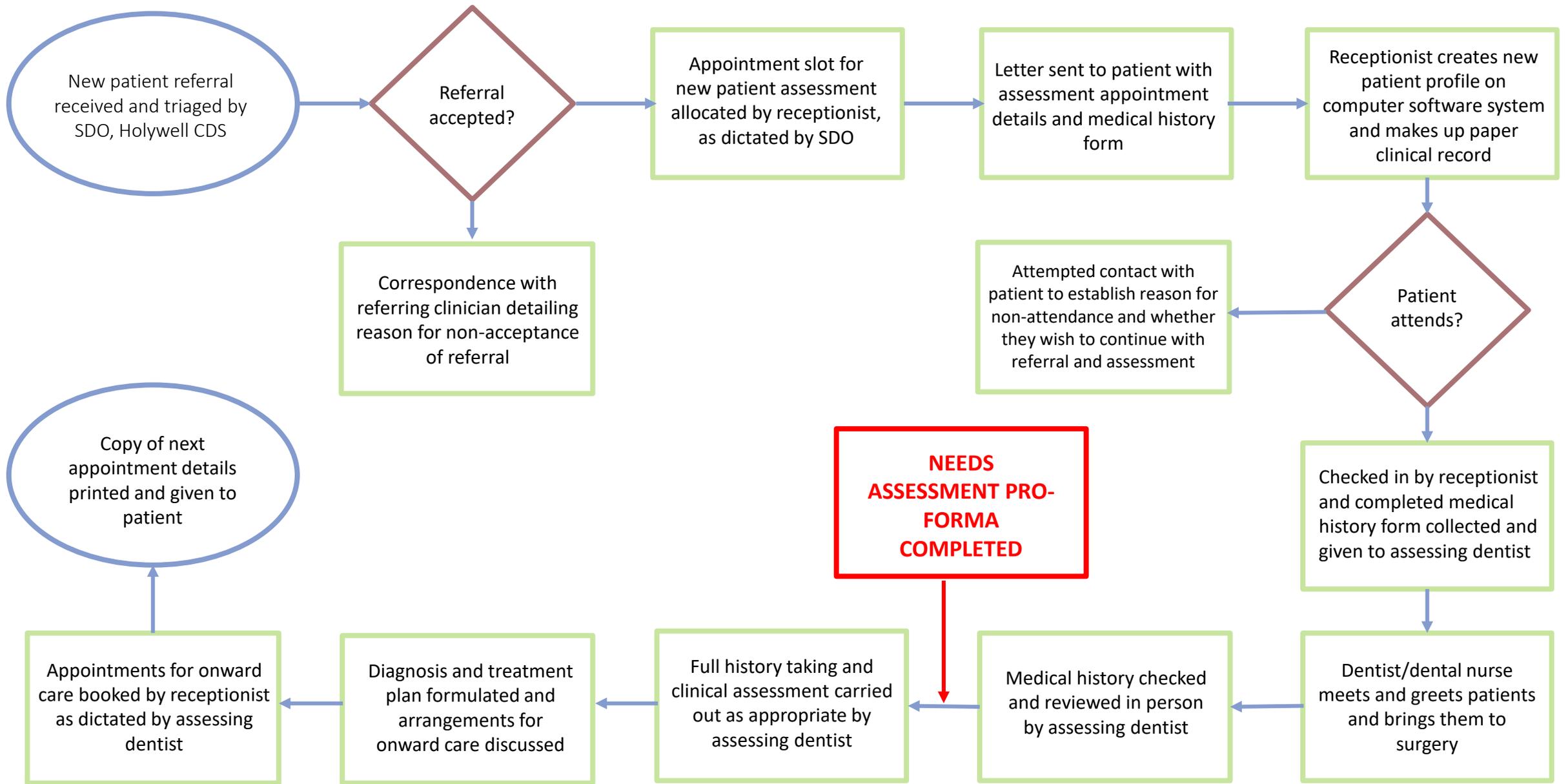
7.1 Implement a quality improvement with team members to include:

- Using process mapping
- Collecting data
- Analysing data
- Evaluating results
- Differentiating between different types of statistical variation

7.2 Undertake a small test of change against the quality improvement implemented in 5.1

Process mapping...¹⁷ (7.1)





Data to be collected	<ul style="list-style-type: none"> ○ Average percentage of needs assessed per patient using developed criteria as standard ○ Time taken to analyse the clinical record in attempting to identify the relevant information ○ Percentage of clinical records containing information on each aspect of care provision identified as of importance
From	<ul style="list-style-type: none"> ○ Clinical records of all new SCD patients seen for an initial assessment appointment following referral into the service <ul style="list-style-type: none"> • Baseline 22/10/18 to 07/12/18 • 1st PDSA 08/12/18 to 11/01/19 • 2nd PDSA 15/01/19-20/02/19
Who	<ul style="list-style-type: none"> ○ Aoife Nic Iomhair
When	<ul style="list-style-type: none"> ○ Retrospective to obtain baseline ○ Weekly following implementation of changes
Where	<ul style="list-style-type: none"> ○ Data collection form (below) ○ Stored on computer system
How	<ul style="list-style-type: none"> ○ Excel Programme
Why	<ul style="list-style-type: none"> ○ Measure baseline performance in assessing and documenting the specific dental care needs of SC patients during new patient assessment appointments ○ Monitor for changes in performance following implementation of changes designed to achieve improvement

Data Analysis

(7.1)

Testing changes using PDOSA cycles...

PDSA Cycle 1 (7.2)



PREDICTION FOR PDSA CYCLE 1:

- Increase in % of relevant care needs assessed for and documented during new patient assessments,
- Reduction in time taken to assess each patient record in attempting to identify the relevant information
- Increase in % of clinical records with each aspect assessed and documented

Plan:

- Design of Patient Needs Assessment Pro-Forma

Do:

- Introduction of PNA Pro-Forma

Study:

- Collection and monitoring data as described
- Evaluation of changes and further action needed

Act:

- Changes to Pro-Forma to improve visibility
- Change to process

PDSA Cycle 1 Evaluation (7.1)

Small improvements in:

- % of relevant care needs assessed for and documented during new patient assessments
- Time taken to assess each patient record in attempting to identify the relevant information
- % of clinical records with each aspect assessed and documented

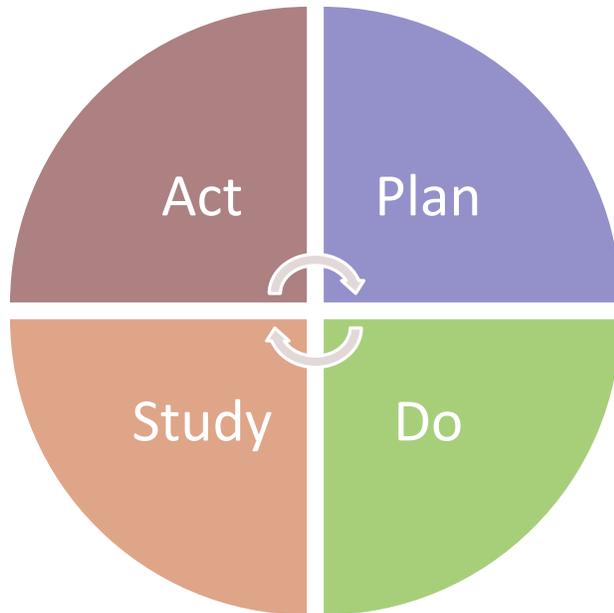
However:

- Results inconsistent
- Targets not achieved

Problems identified:

- Pro-Forma not being consistently and thoroughly completed
- Dentists not remembering to complete form
- Dentists forgetting to complete form during assessment and trying to complete from memory afterwards

PDSA Cycle 2 (7.2)



PREDICTION FOR PDSA CYCLE 2:

- Increase in % of relevant care needs assessed for and documented during new patient assessments,
- Reduction in time taken to assess each patient record in attempting to identify the relevant information
- Increase in % of clinical records with each aspect assessed and documented

Plan:

- Increase visibility and reduce reliance on memory

Do:

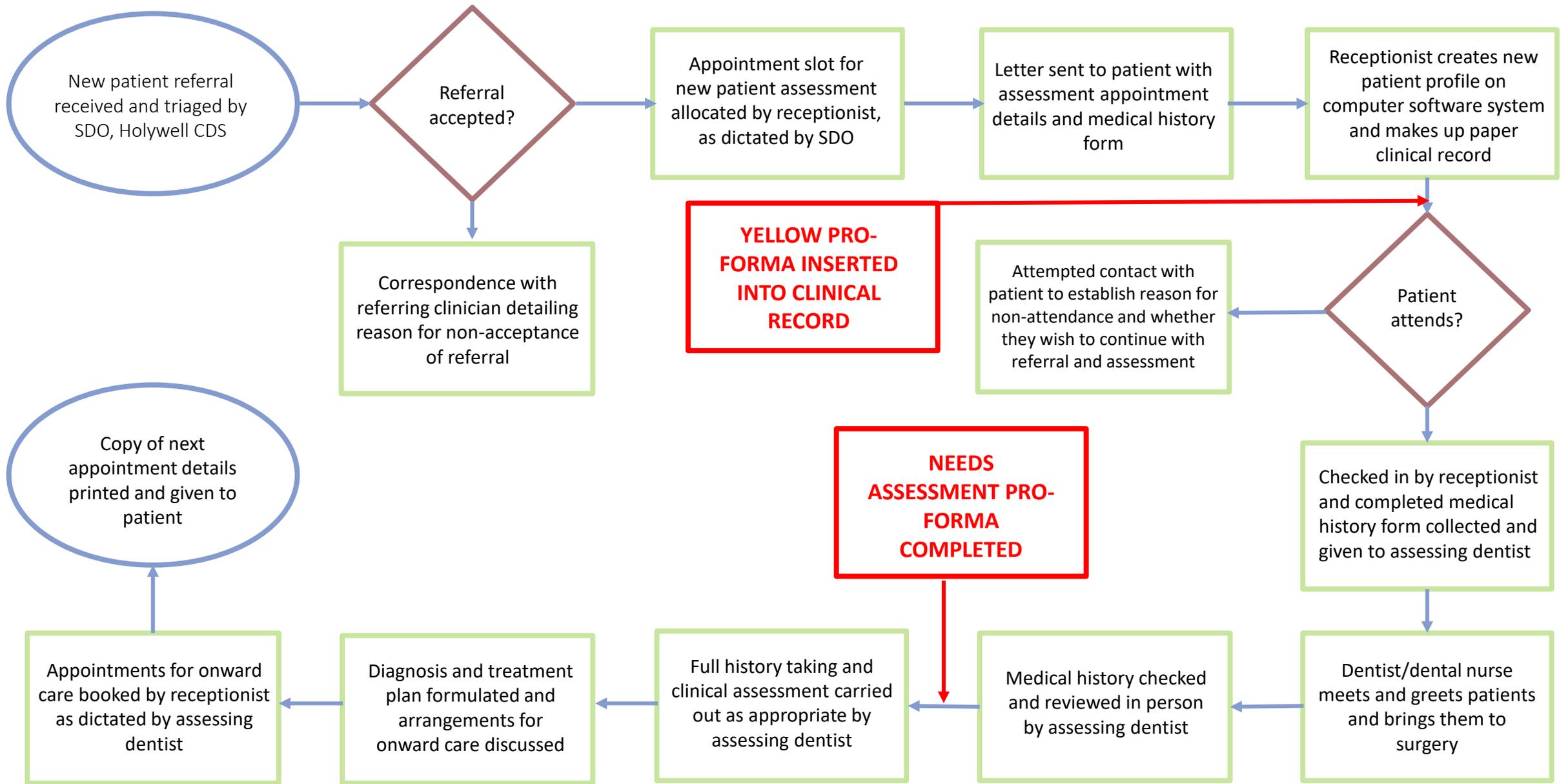
- Pro-Forma printed on yellow paper
- Pro-Forma inserted into patient chart by reception staff prior to appointment as a prompt for dentist

Study:

- Collection and monitoring data as described
- Evaluation of changes and further action needed

Act:

- Incorporation of Needs Assessment into Medical History Form (change required at directorate level)



PDSA Cycle 2 Evaluation (7.1)

Significant improvements in:

- % of relevant care needs assessed for and documented during new patient assessments,
- Time taken to assess each patient record in attempting to identify the relevant information
- % of clinical records with each aspect assessed and documented

However:

- Completion of Pro-Forma time-consuming
- Additional paperwork burden for assessing dentist

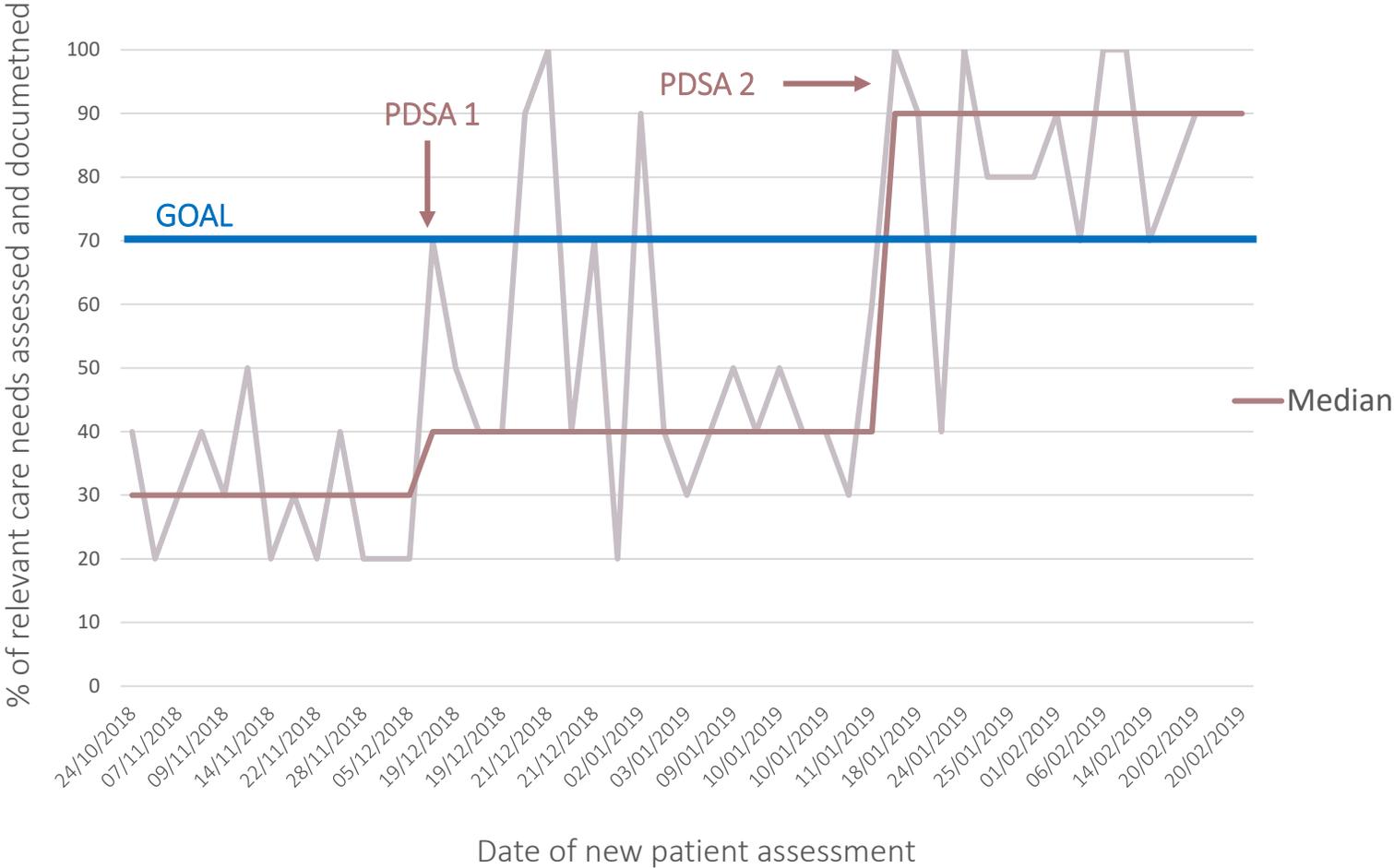
Potential solution:

- Incorporation of a Needs Assessment into Medical History Questionnaire which is sent out to patients to be completed before assessment appointment
- Patients could complete sections which they are able to provide information about e.g. next of kin details, transport to clinic etc.
- Additional sections completed by assessing dentist at assessment appointment e.g. dental treatment considerations, oral hygiene considerations
- Reduction in paperwork
- Reduction in time needed for assessment
- This PDSA needs escalated to Directorate level...

Demonstrating improvement...

Run chart:

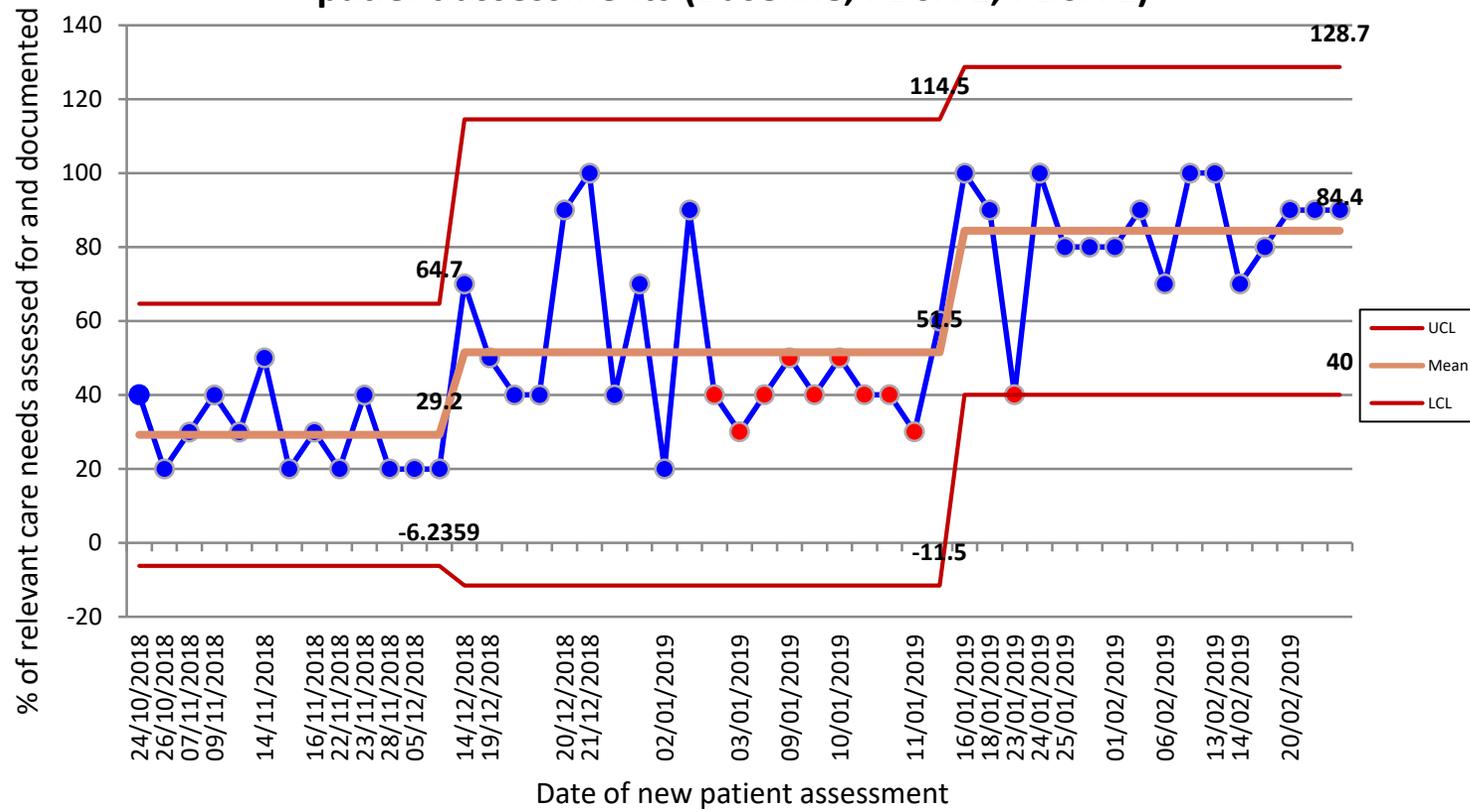
% of relevant care needs assessed for and documented during new patient assessments (Baseline, PDSA 1, PDSA 2)



Results

SPC Chart:

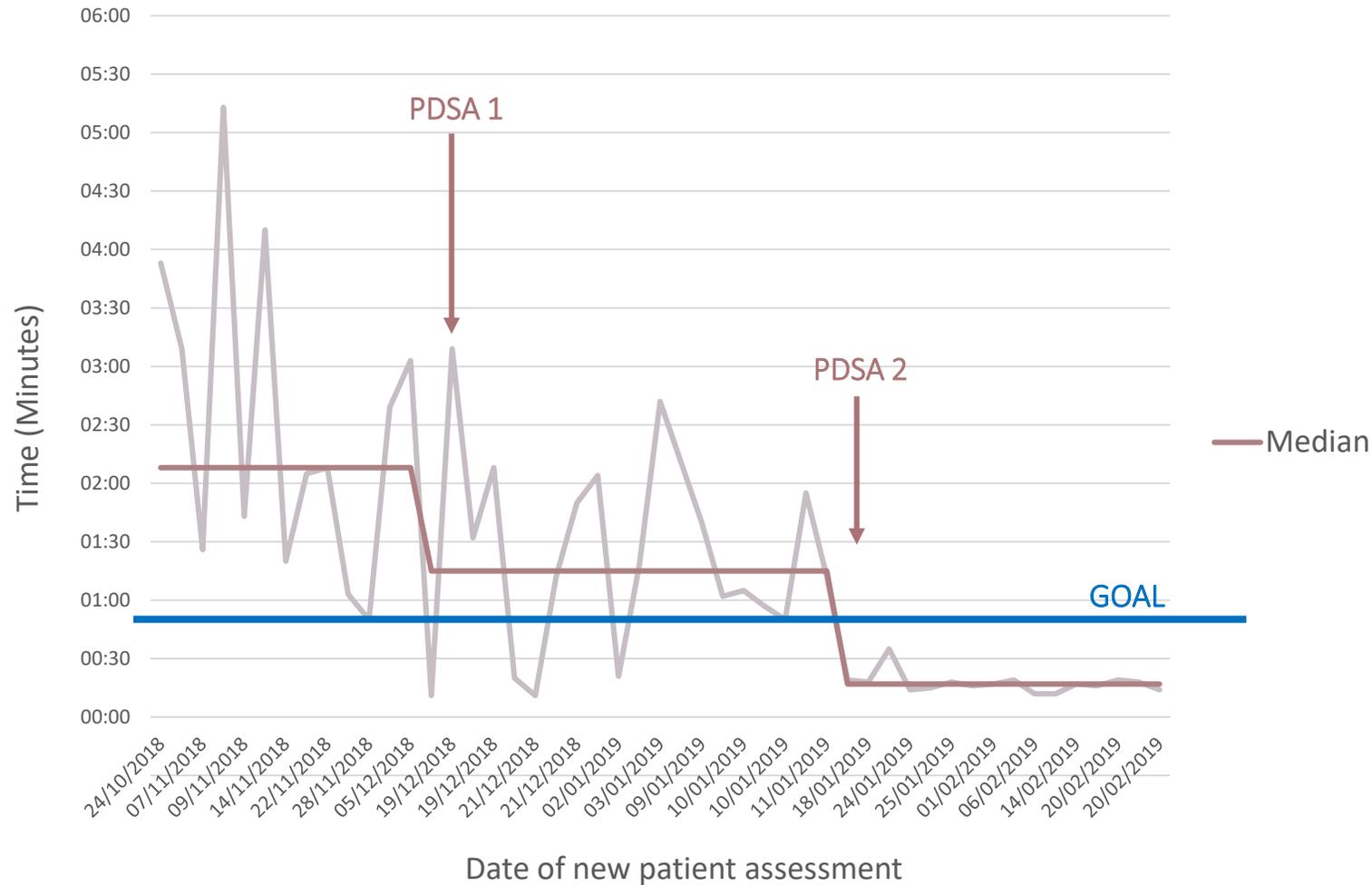
% of relevant care needs assessed for and documented during new patient assessments (Baseline, PDSA 1, PDSA 2)



Results

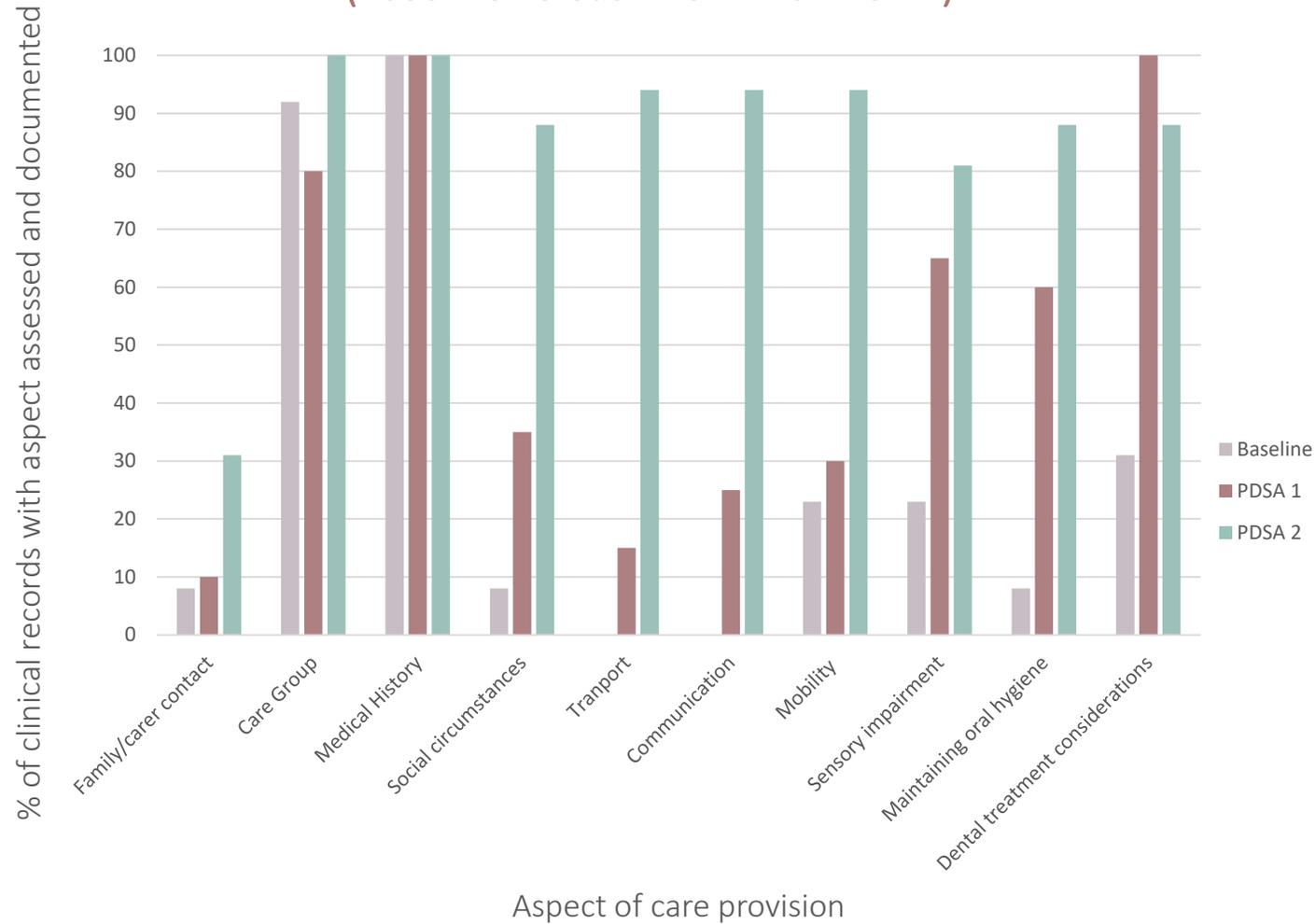
Run chart:

Time taken to assess each patient record in attempting to identify the relevant information (Baseline, PDSA 1, PDSA 2)



Results

Chart to show % of clinical records with each aspect assessed and documented (Baseline versus PDSA 1 vs PDSA 2)



Results

Learning Outcome 8

8. Be able to reflect on quality improvement.

Assessment Criteria

8.1 Evaluate own role and the role of others in quality improvement to include:

- Strengths
- Weaknesses
- Opportunities
- Threats

8.2 Evaluate the potential for spread of the quality improvement.

8.3 Identify priorities for future quality improvement.

8.4 Assess the sustainability of the quality improvement.

Evaluation (8.1)

Strengths

- Easy to implement
- Within Circle of Influence
- Relevant to practice
- Patient-focused
- Small scale to start
- Staff receptive and engaged
- Good patient feedback
- Potential to develop further to improve sustainability
- Addresses increasing need and responsibility to provide patient-centred care
- Identifying barriers to care in an attempt to reduce them
- Positive impact on staff
- Information very easy to identify
- Consistency of care

Weaknesses

- Adding steps into process
- Increased time required for assessment
- More paperwork!
- 1st PDSA reliance on memory
- One staff member for data collection
- Data collection time-consuming
- Data collection difficult to be completely objective at baseline
- Process measures rather than outcome measures
- Unable to measure patient impact with current process and measures
- Additional burden on staff reduces likelihood of sustainability
- Could have involved other members of staff more in planning?
- New member of staff
- Longer period of data collection
- Bigger sample of patients

Opportunities

- Development of current idea to achieve benefits, while reducing additional burden on staff
- Incorporation of current Pro-Forma into Medical History Questionnaire offers opportunity to streamline the process
- Increased likelihood of sustainability
- Opportunity to spread QI among other CDS clinics within North Wales
- Likely to be an issue of increasing importance generally, even outside community setting
- Assessment of holistic factors that may impact on provision/acceptance/risks of dental treatment should be considered for all patients?
- Allows for most appropriate planning of care

Threats

- CDS clinic involved was SCD specialist setting
- Clinicians working in other setting may not be as motivated/engaged/see the benefits of the project
- Time-burden
- Increased administrative tasks for assessing dentist and reception staff
- Resistance to further changes required at Directorate level i.e. MH form needs changed at overall CDS level rather than individual clinics
- Patients may be reluctant to provide some of the information
- Further PDSA cycles need completed to improve sustainability
- This involves other staff who may not engage
- Current project leader moving on to new post



NHS Sustainability Model ¹⁸

Further staff training

Increased staff involvement in QI roles

Increased involvement clinical leaders and managers

?Outcome measures

More stakeholder involvement

Changes in monitoring processes

Improved communication re project and results

Adaptation of MH form

Update of computer software to allow accessibility of information

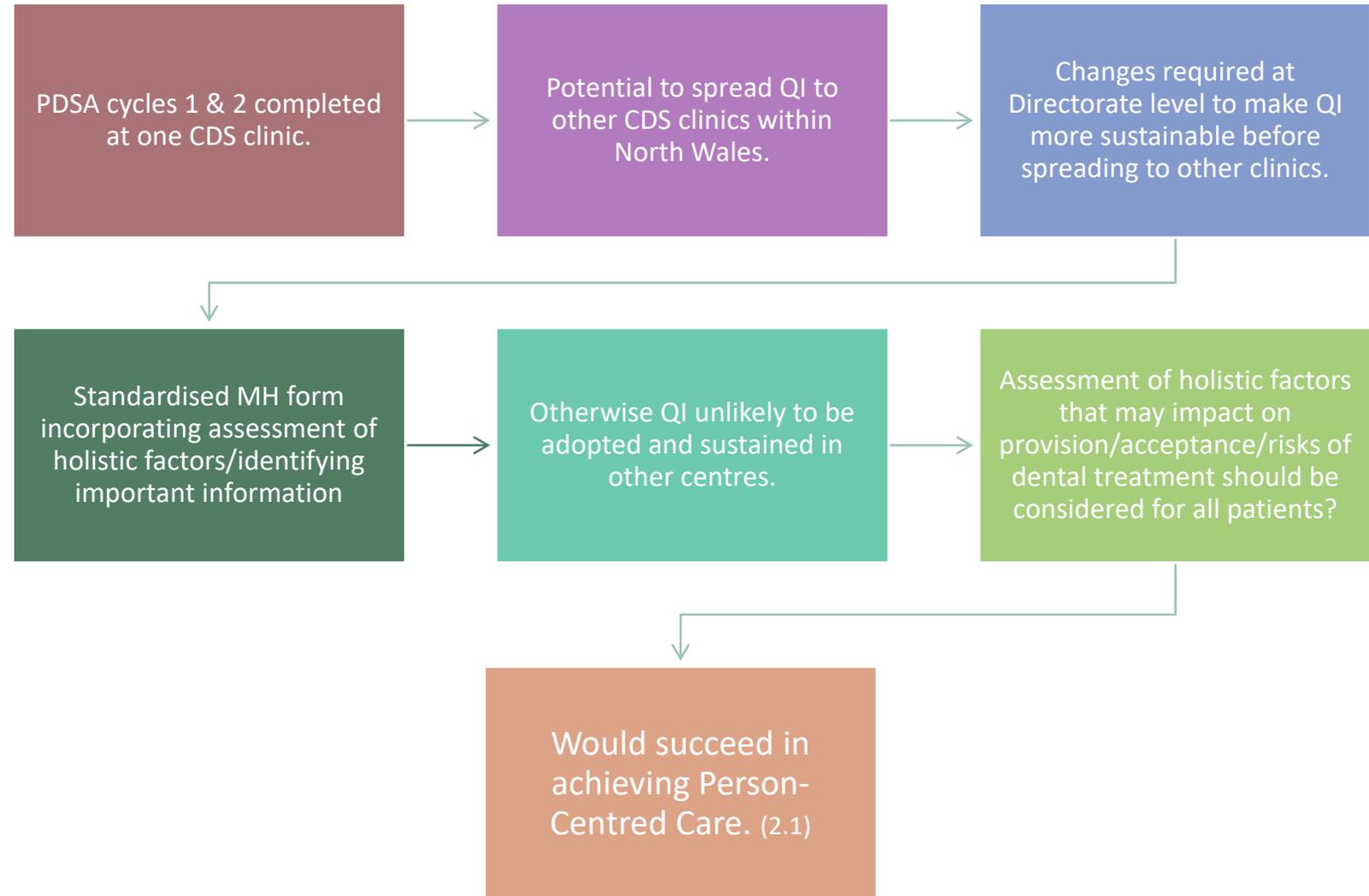
Clarification of responsibilities and roles, especially with transfer of roles

Emphasis on project rationale and potential benefits

Improve efficiency of process

To improve Sustainability?^{12,18} (8.4)

Potential spread of Quality Improvement¹² (8.2)



Spread (8.2)

Who

- Other CDS clinics in NWCDS

Why

- Improve performance in identifying specific dental care needs of SCD patients

What

- Standardised MH form incorporating holistic Needs Assessment

How

- Changes at Directorate level via provision of new MH forms

When

- Following next PDSA cycles allowing adaptation to current project

Priorities for future Quality Improvement (8.3)

- Escalation of project beyond current level of influence

- Achieve further changes required to improve sustainability

- Spread of QI to all CDS clinics within North Wales

- Following further PDSA cycles to improve sustainability

- ?Potential to use outcome rather than process measures

- Requires consideration of potential outcome measures

- Consider assessment of holistic factors for all patients outside SCD environment?

- Patient-centred

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