

Silver IQT: Improving the quality of **Tailored Oral Hygiene and Diet Advice** in a High Needs Paediatric Dental Centre

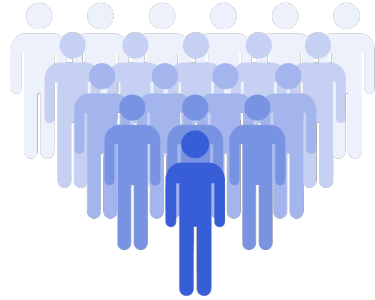


Lorna Hirst DCT 1: University Dental Hospital Wales

Why Quality Improvement?



Engagemen
t and
support of
frontline
staff



Improving
leadership skills



Improving
value of NHS
services



Operational and financial
pressures



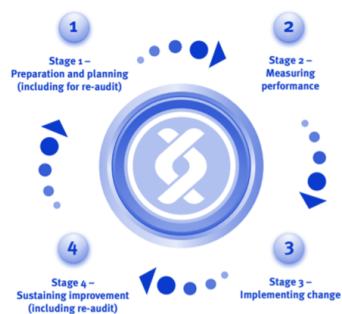
Delivering
evidence based
care



Improved **patient, service**
user and **carer**
involvement

Quality Improvement Methods

Figure 6: The clinical audit cycle¹⁴



Clinical audit

PDSA cycles

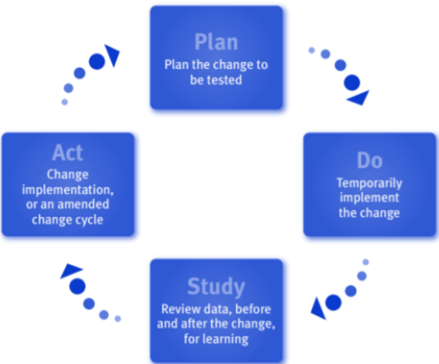
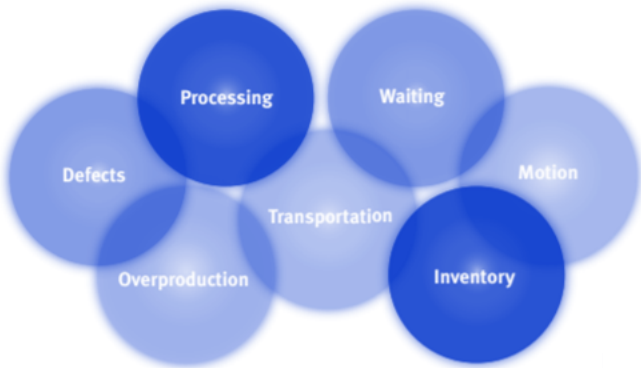


Figure 15: Situation, background, assessment, recommendation (SBAR)



SBAR

Figure 9: Lean elimination of waste

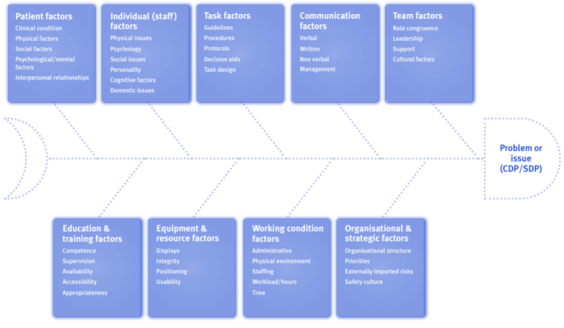


6 sigma elimination of waste

Performance benchmarking

Healthcare failure modes and effects analysis (HFMEA)

Figure 14: Fishbone cause and effect diagram¹⁸



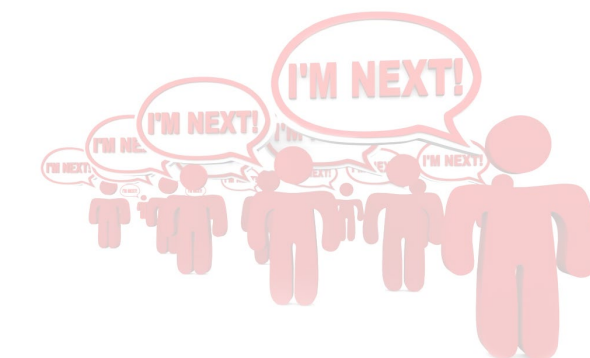
Root cause analysis / fishbone

Process mapping

Person Centred Approach



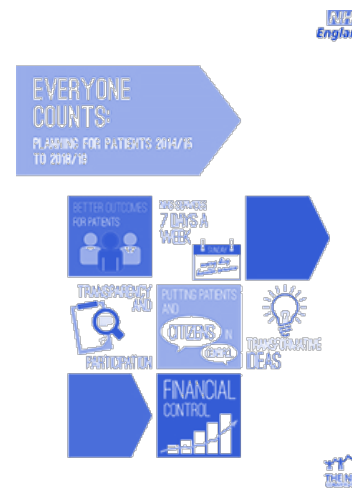
Effective –
Scientific
Basis



Timely – reducing harmful
delays



Efficient –
Utilising the
whole team



**Patient
Safety**

Equitable –
everyone counts

Aim

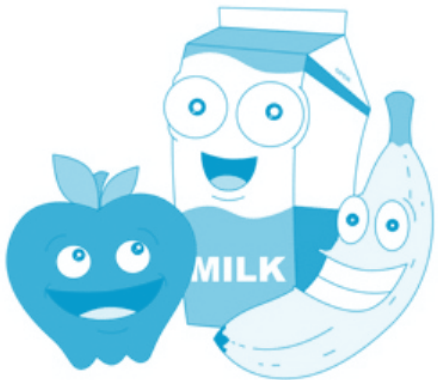
- S - Specific
- M – Measurable
- A – Achievable
- R – Realistic
- T – Time Limited

At least **80%** of recall
paediatric patients are
given **tailored** OHI and
diet Advice by **May**
2019



Patients **5-15 years**

Why Paediatric OHI / Diet?



Measures Checklist

- ▶ **Measure Name:** Improved oral hygiene and diet advice for high needs paediatric patients
- ▶ **Who owns the measure:** DCT1
- ▶ **Definition:** % of paediatric patients given tailored OHI / diet at review appointment
- ▶ **Data items:** Recall notes on diet advice and OHI
- ▶ **Calculation:** Tailored diet advice / total patients x 100. tailored OHI/ total patients x 100
- ▶ **Which patient groups:** All recall patients 5-15 years
- ▶ **Numerical goal:** 80% achieved
- ▶ **Achieved by:** May 2019



Measurement Process

- ▶ **Data available:** available on SOEL
- ▶ **Responsible for data collection:** Lorna DCT
- ▶ **Process:** SOEL notes reviewed on daily basis
- ▶ **Presentation of results:** run chart excel
- ▶ **Responsibility for analysis:** Lorna
- ▶ **How often is analysis completed:** daily
- ▶ **Responsible for taking action:** Lorna



Collecting Data

- ▶ **WHAT:** all recall paediatric patients 5-15
- ▶ **WHO:** DCT 1 (LH)
- ▶ **WHEN:** Retrospectively September 2018, Prospectively from November 2018
- ▶ **WHERE:** Pontypridd Dental Centre
- ▶ **HOW:** Software of Excellence



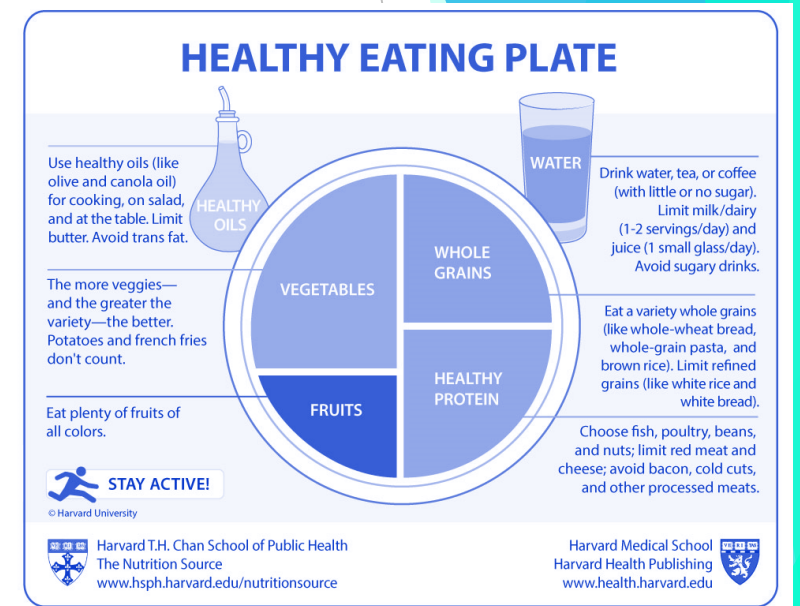
Criteria for tailored OHI advice:

0	No oral hygiene advice recorded
1	Basic (generic) information including: 2 x daily / spit don't rinse
2	Tailored advice: quantity of TP (smear/ pea), recommended specific TP ([F-], specific TB
3	Tailored TBI given : e.g. areas missed / LHS/RHS / related to orthodontics and/or plaque disclosing dye used in clinic



Criteria for tailored dietary advice:

0	No dietary advice recorded
1	Diet advice (generic : sugar to meal times / fruit consumption / safe drinks for teeth)
2	- Diet advice and Verbal diet diary has been completed
3	Dietary advice and written diet diary completed with tailored feedback and/or additional information given e.g. (sugar stacks / design to smile handout)



Changes to Test



Prediction: greatest improvement, more time, easy to slot in whilst I write notes, nurse engagement.

Prediction: short term improvement only?



Prediction: compliance / accuracy problems

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Prediction: Others in practice may find this useful.

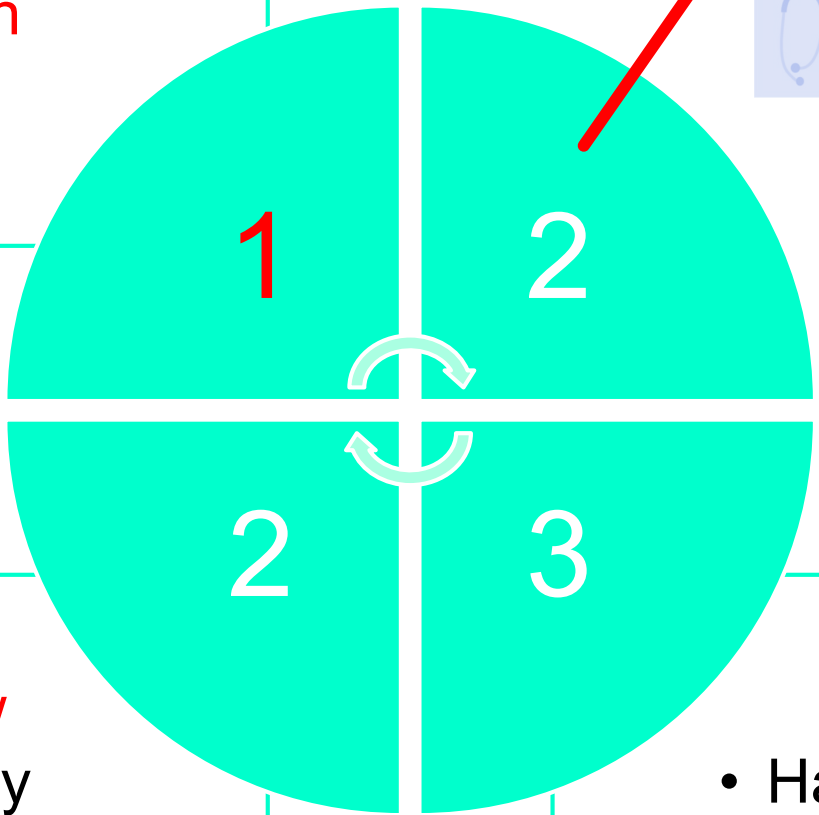
Ease / Benefit Matrix



Oral hygiene
models out
BENEFIT

• High

• Low
• Easy



Training
dental nurses



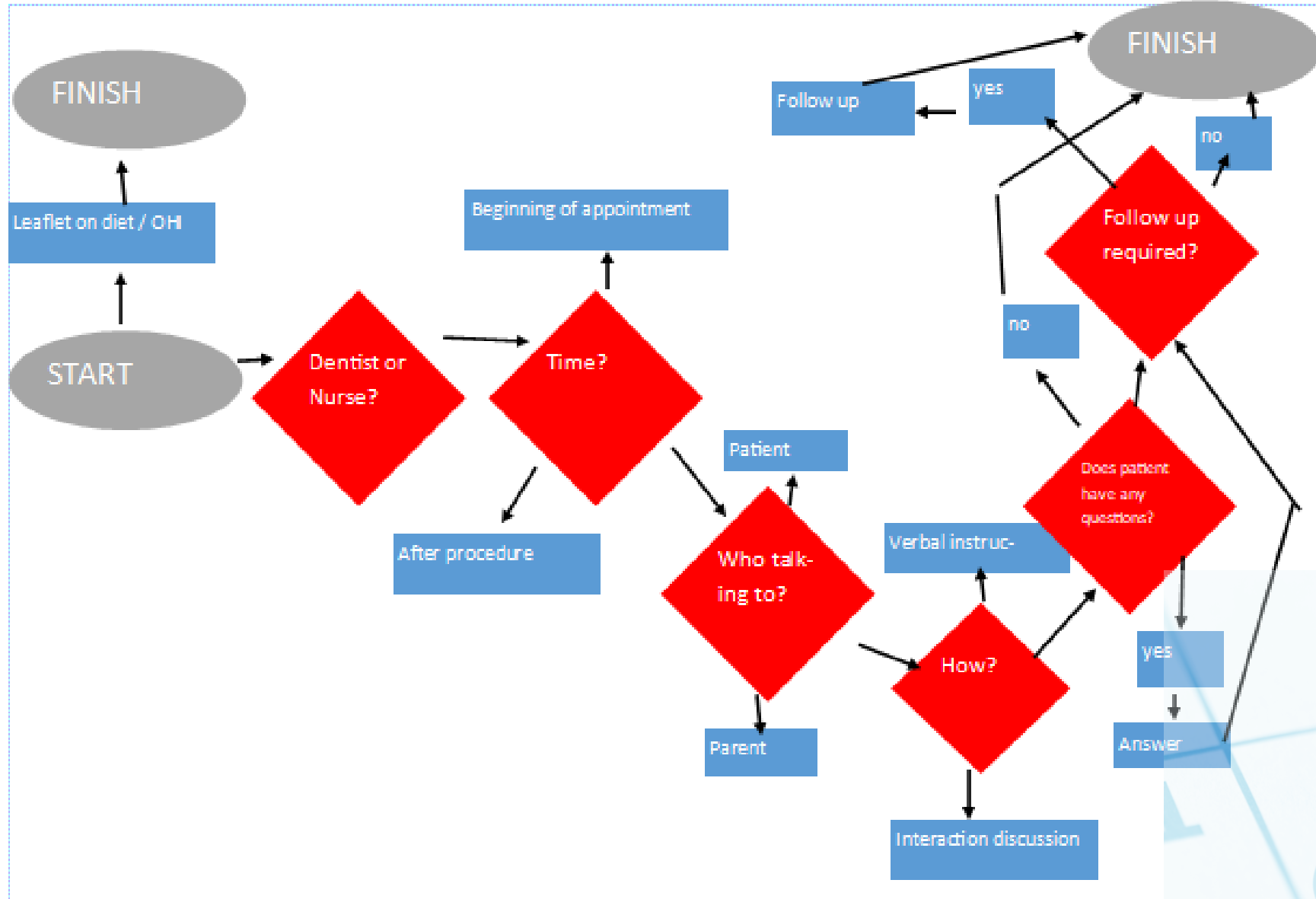
Completion of
diet diaries

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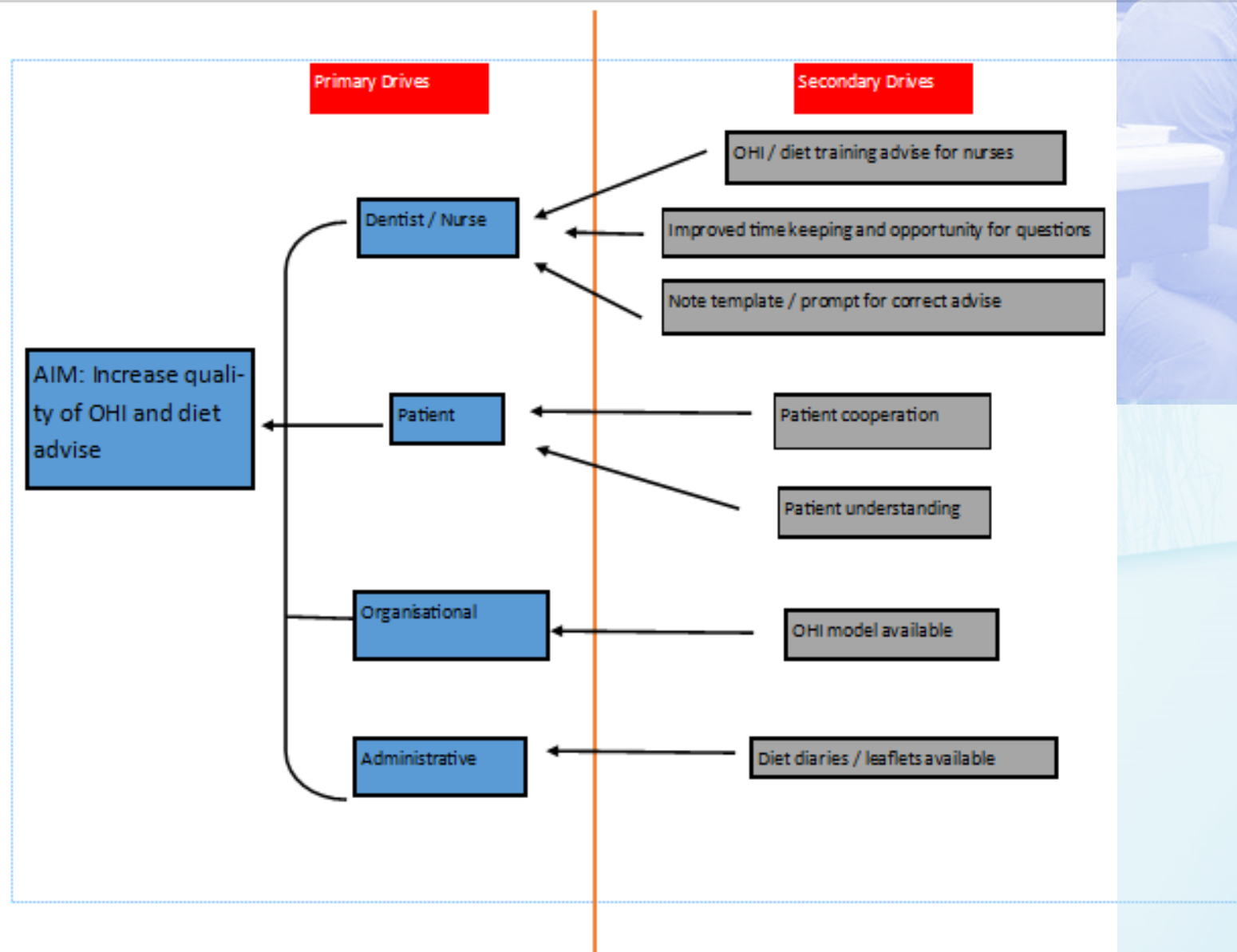
Questionable benefit
to patients

TO TEST

Flow Chart



Primary and Secondary Drivers



Root Cause Analysis

Human Error

- forgot to give instructions
- One of instructions not given
- Staff not trained

Administrative :

Diet sheet not printed

Problem: inadequate OHI /
diet advise

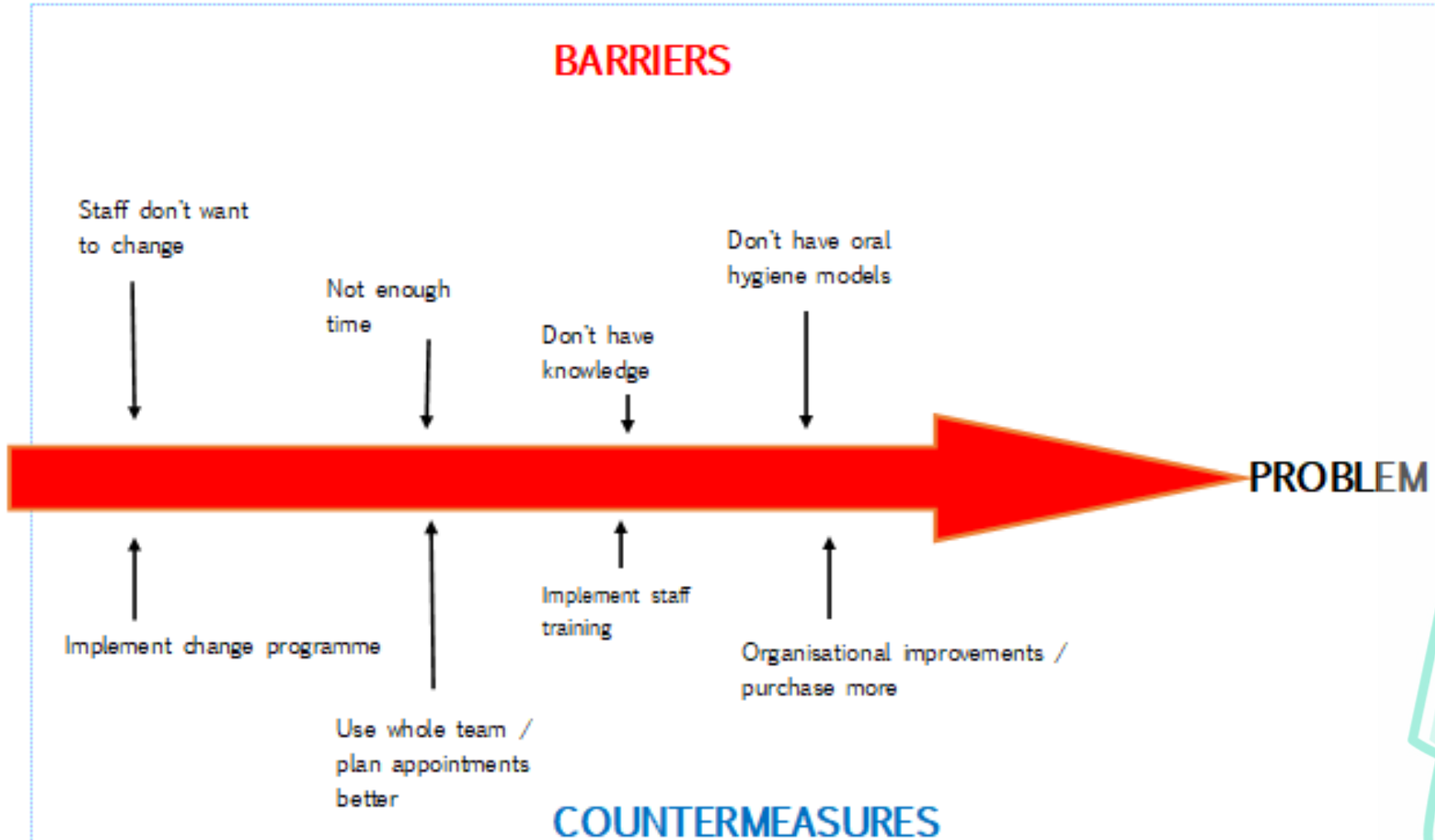
Tailored Advise:

- no consideration of patient age
- Learning difficulties
- Medical factors
- Nutritional difficulties / allergies

Patient Factors:

- other children in room causing distraction / interruption
- Child at pre-cooperative stage
- Lack of cooperation after dental procedure means un interested in further engagement
- Dentist uses jargon: fluoride, caries, acid erosion

Barriers and Countermeasures



Diet Diary hand out

My Food and Drinks Diary



Day 1 (day)	This is what I've had to eat and drink
Time	

Please **write** down or **draw** everything you eat and drink in the next three days. Make sure at least one of the days is a Saturday or Sunday

This food and drink diary will help us to offer advice on food and drink choices that are healthier for your teeth!



My Food and Drinks Diary

Day 1 (day)	This is what I've had to eat and drink
Time	

Day 1 (day)	This is what I've had to eat and drink
Time	



Teaching for the Dental Team

Oral Hygiene Instruction and Diet Advice for DCPs

OHI

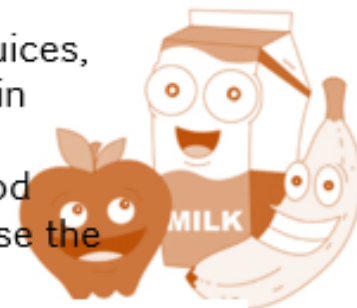
- Teach children to brush as soon as possible. A child's first tooth typically comes through at 6 months old.
- Children should be **supervised** brushing their teeth until about **seven**. This is to ensure they are brushing correctly, and for long enough
 - Brush twice daily, for two minutes including **last thing at night**
 - Use the age-appropriate amount of a toothpaste containing 1000 to 1500 ppm fluoride

'Spit, don't rinse'.



Diet Advice

- Reduce consumption of food and drinks containing **sugar**
 - Drink only **water or milk** between meals
 - Snack on healthier foods, between meals, such as fresh fruit, vegetables, breadsticks, toast and butter and cheese (in moderation).
 - Do **not** place sugary drinks, fruit juices, syrups, honey or sweetened milk or in **feeding bottles or on dummies**
 - Be aware of hidden sugars in food and of the acid content of drinks. Use the **sugar smart app** to help.



Scottish Dental
Clinical Effectiveness Programme

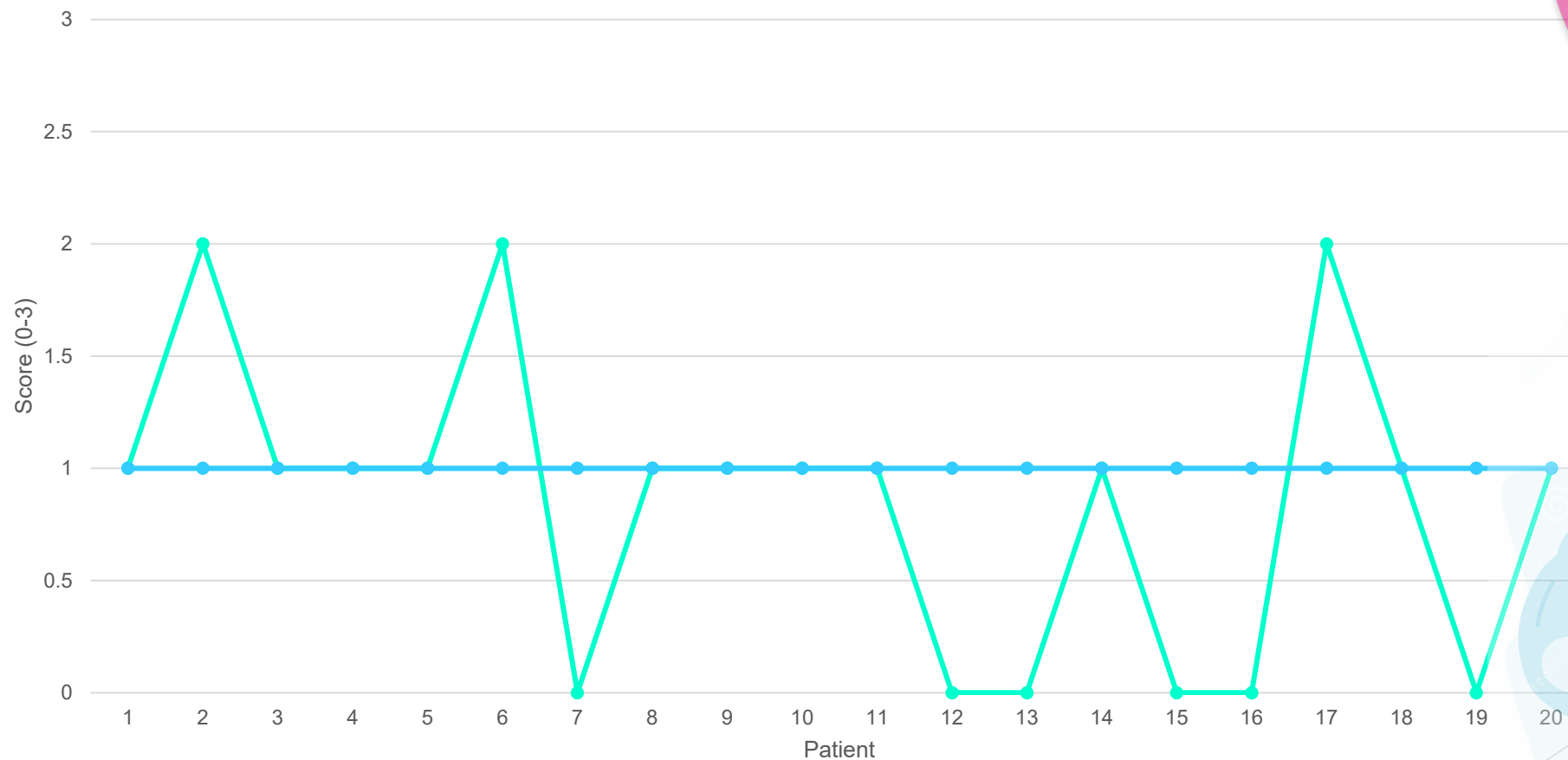


British Society of
Paediatric Dentistry





Baseline OHI



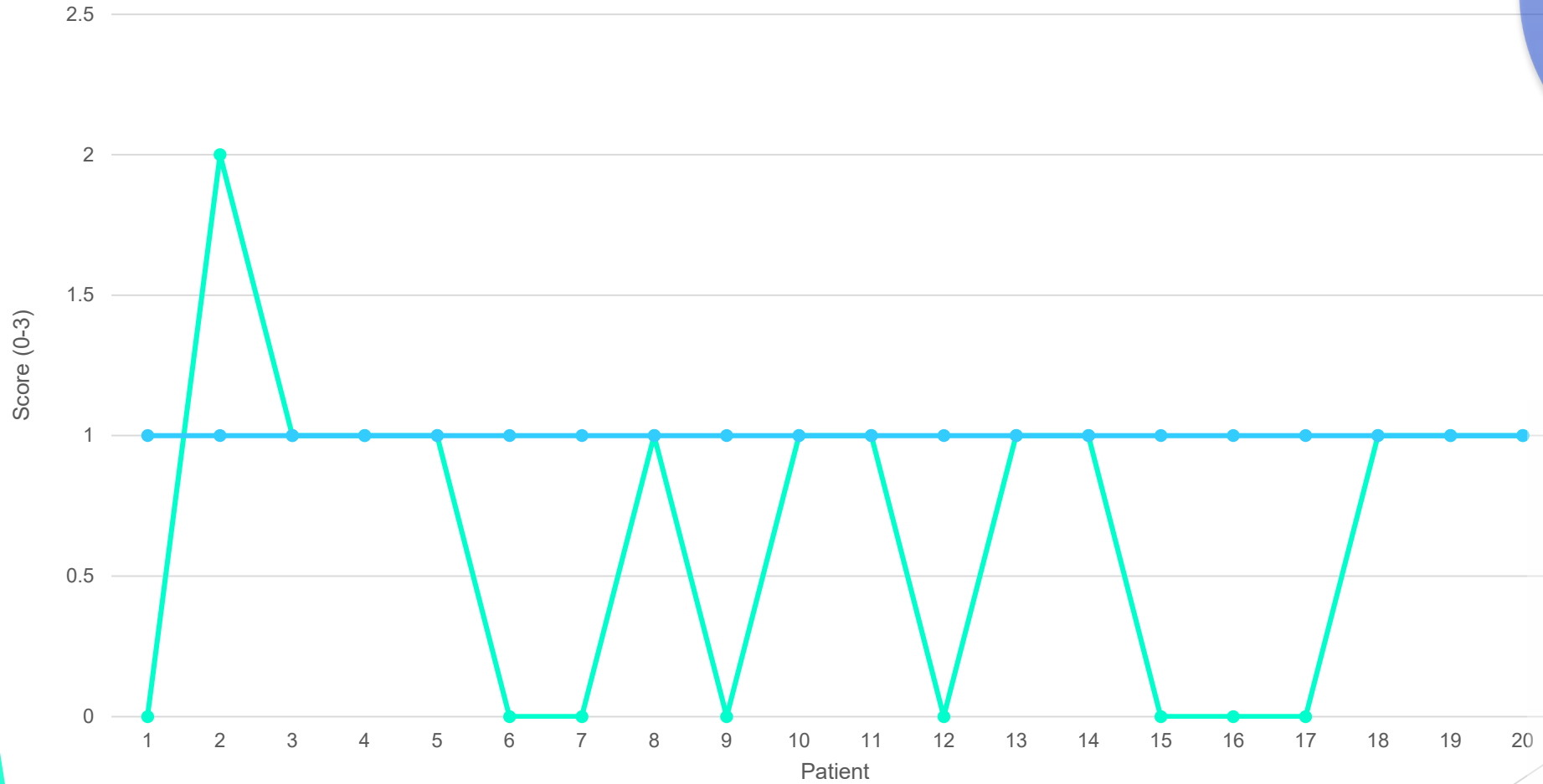
15%
Received **tailored**
OHI

REMEMBER

....

70%
Received **generic**
oral hygiene advice

Baseline Diet



5%

Received **tailored**
Diet advice

REMEMBER

....

60%

Received **generic**
diet advice



PDSA Cycle



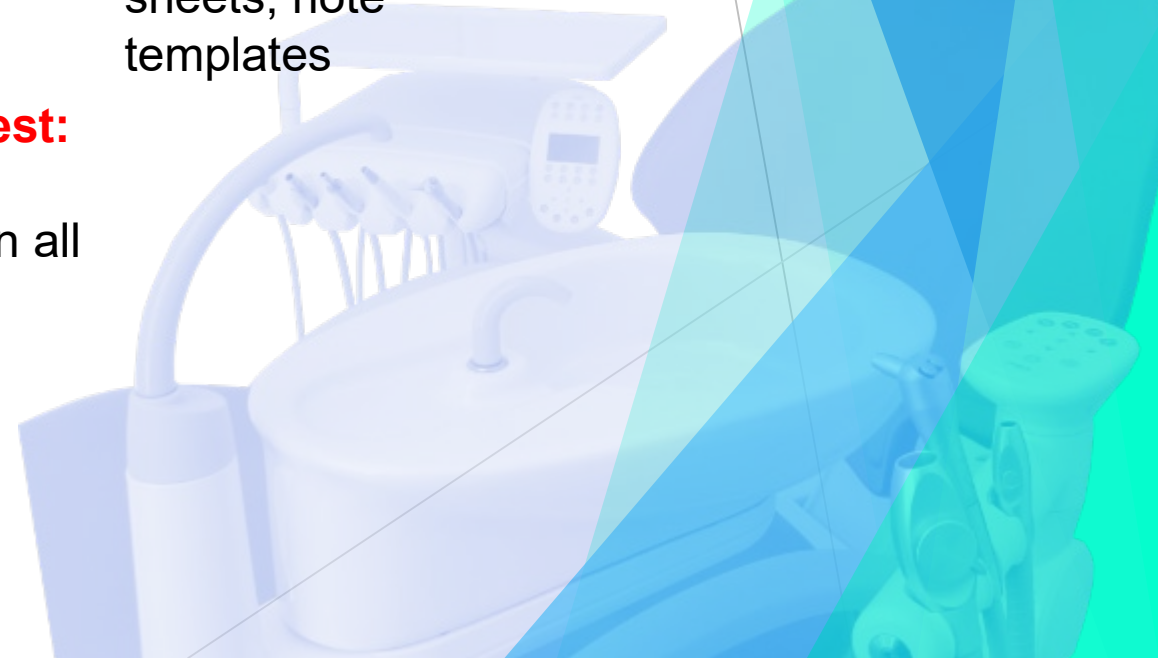
Small scale test: Get nurse to give OHI my surgery, one day



Follow up test: same, whole practice, train all nurses.

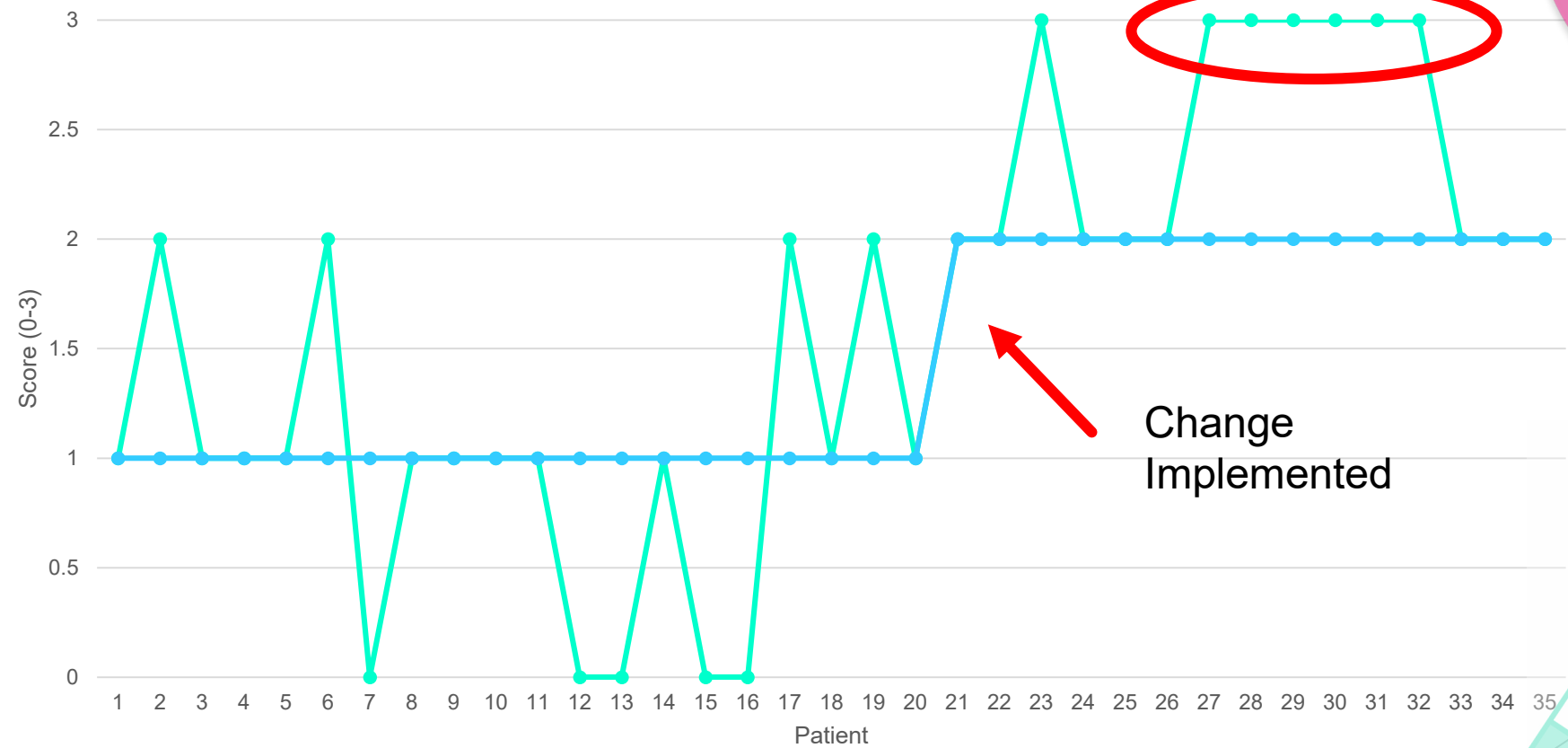
Implementation of change into system: failure evaluation, design and testing

Variation: incorporate models, diet sheets, note templates

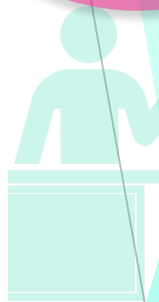




Training Dental Nurses OHI



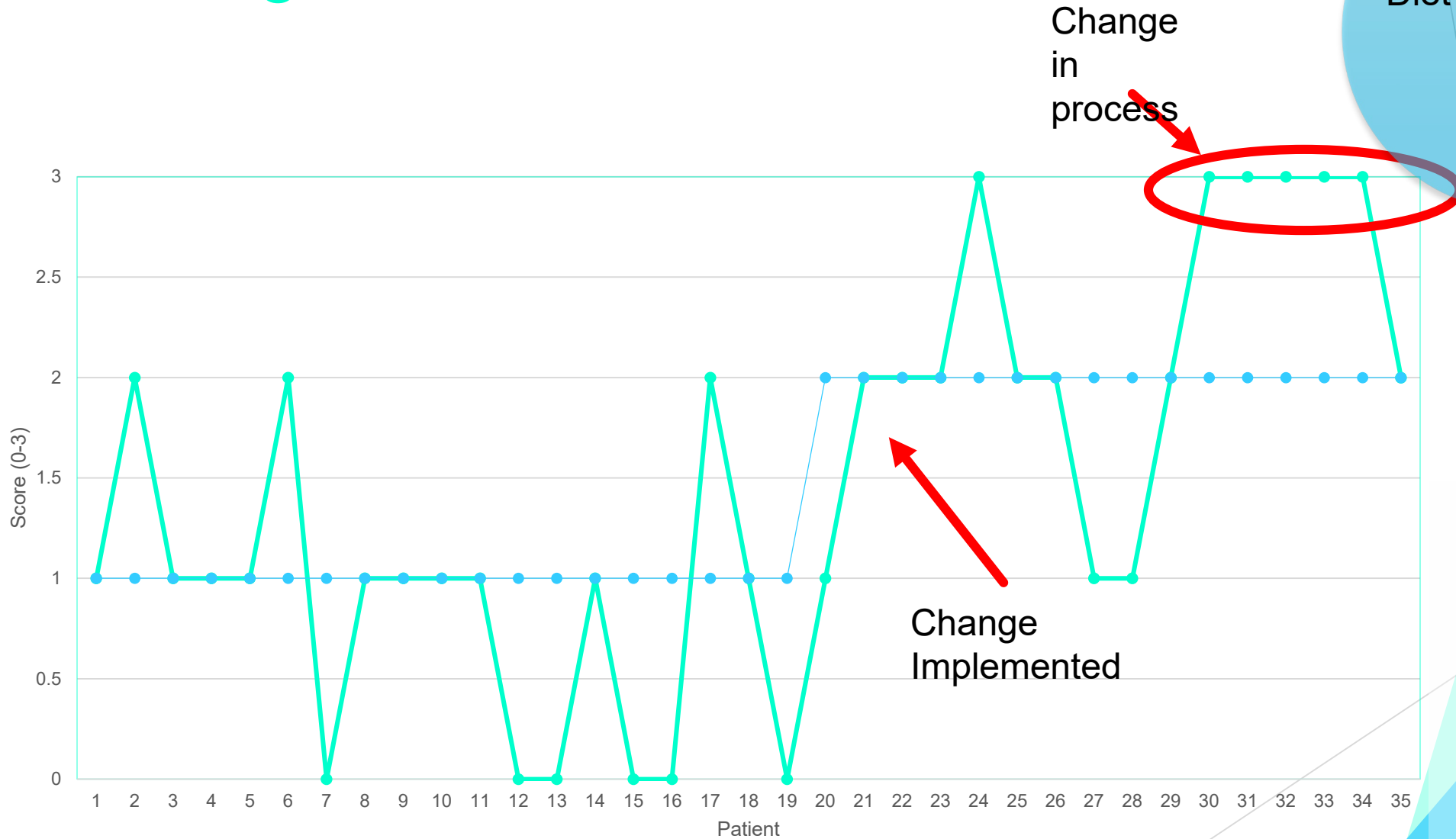
93%
Received tailored
OHI



Training Dental Nurses - Diet

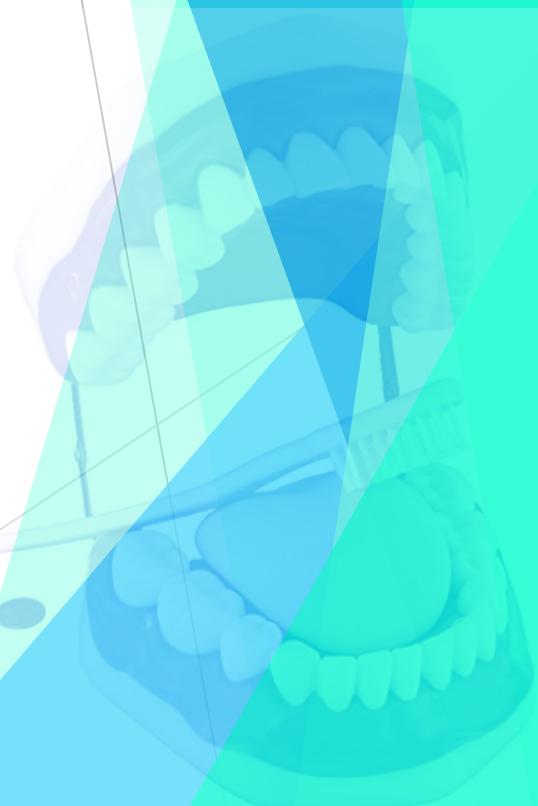
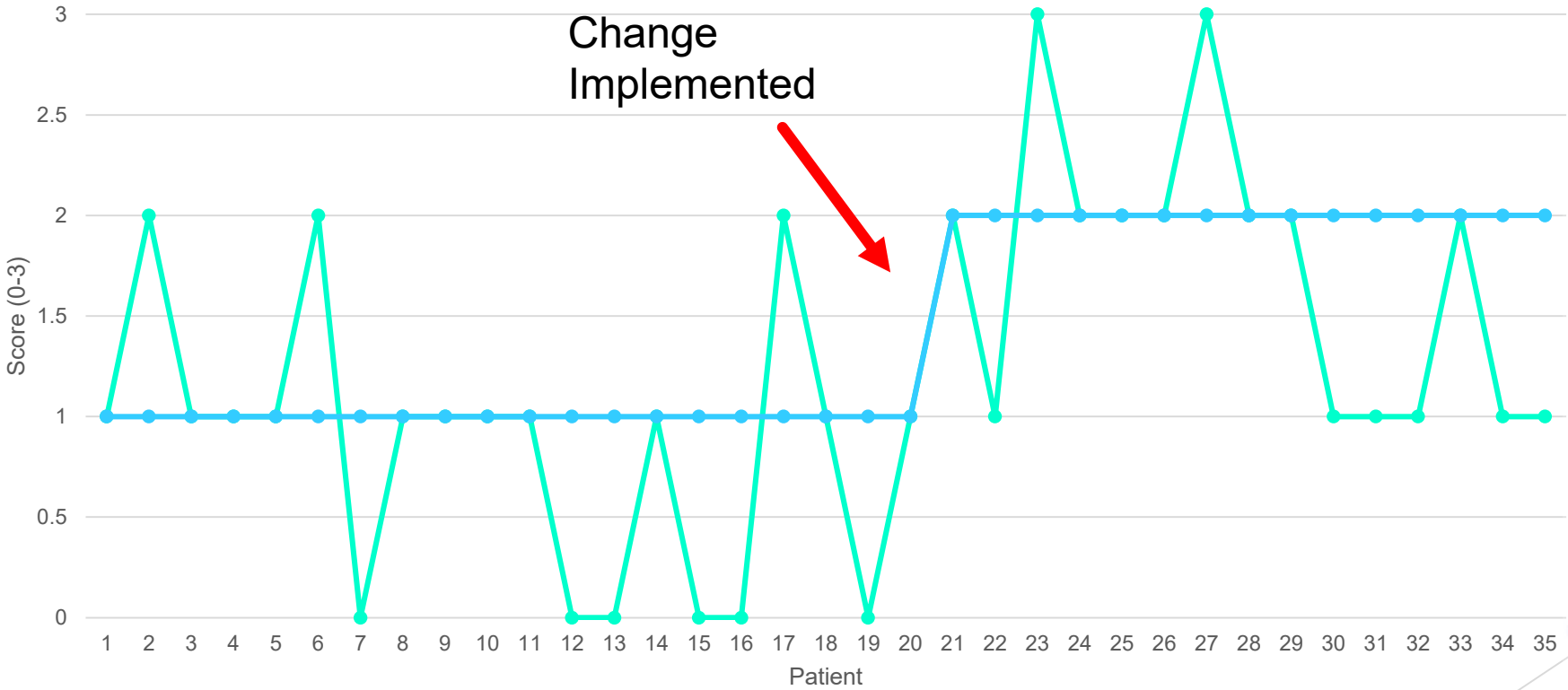
86%

Received tailored
Diet advice



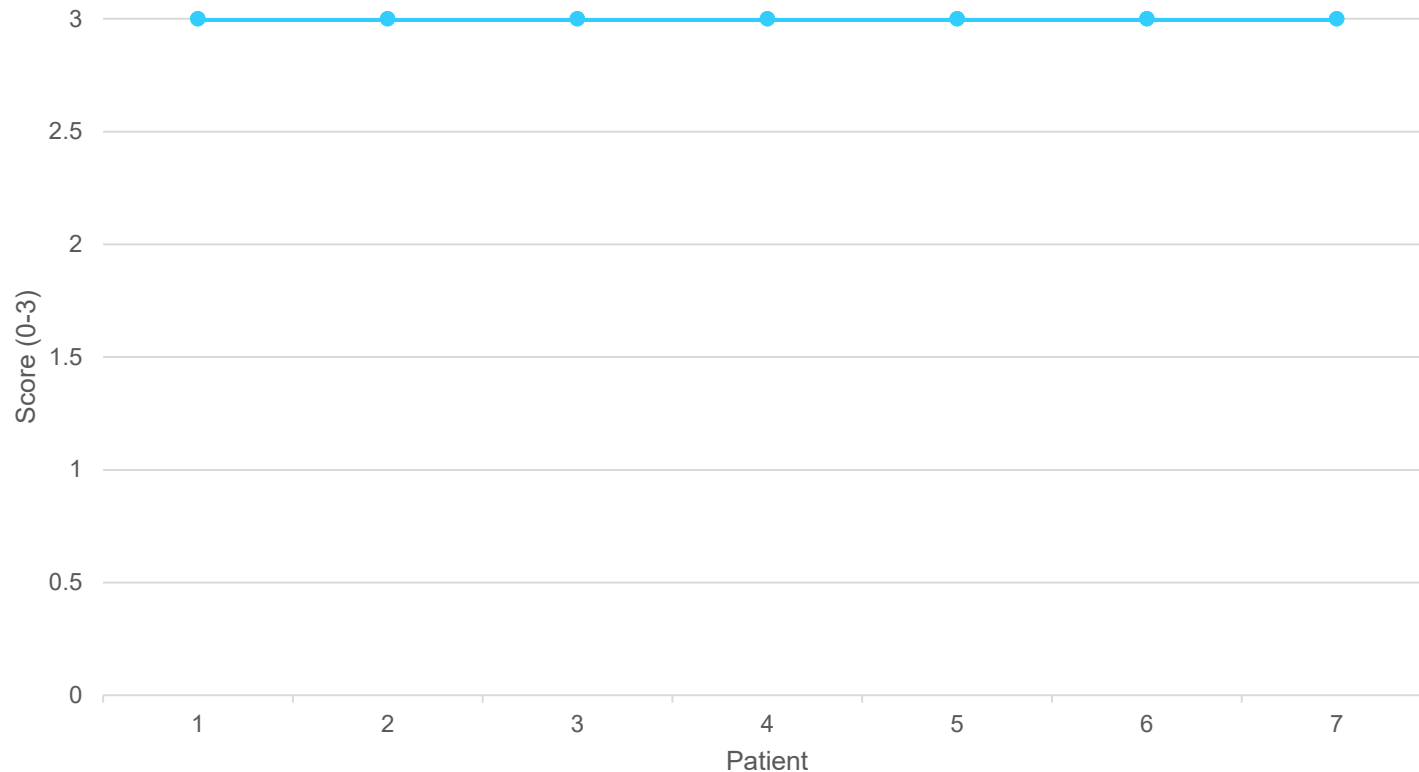
Laying Oral Hygiene Models out in Surgery

60%
Received tailored
OHI



Using Diet Diary

Sample size
of 7 patients

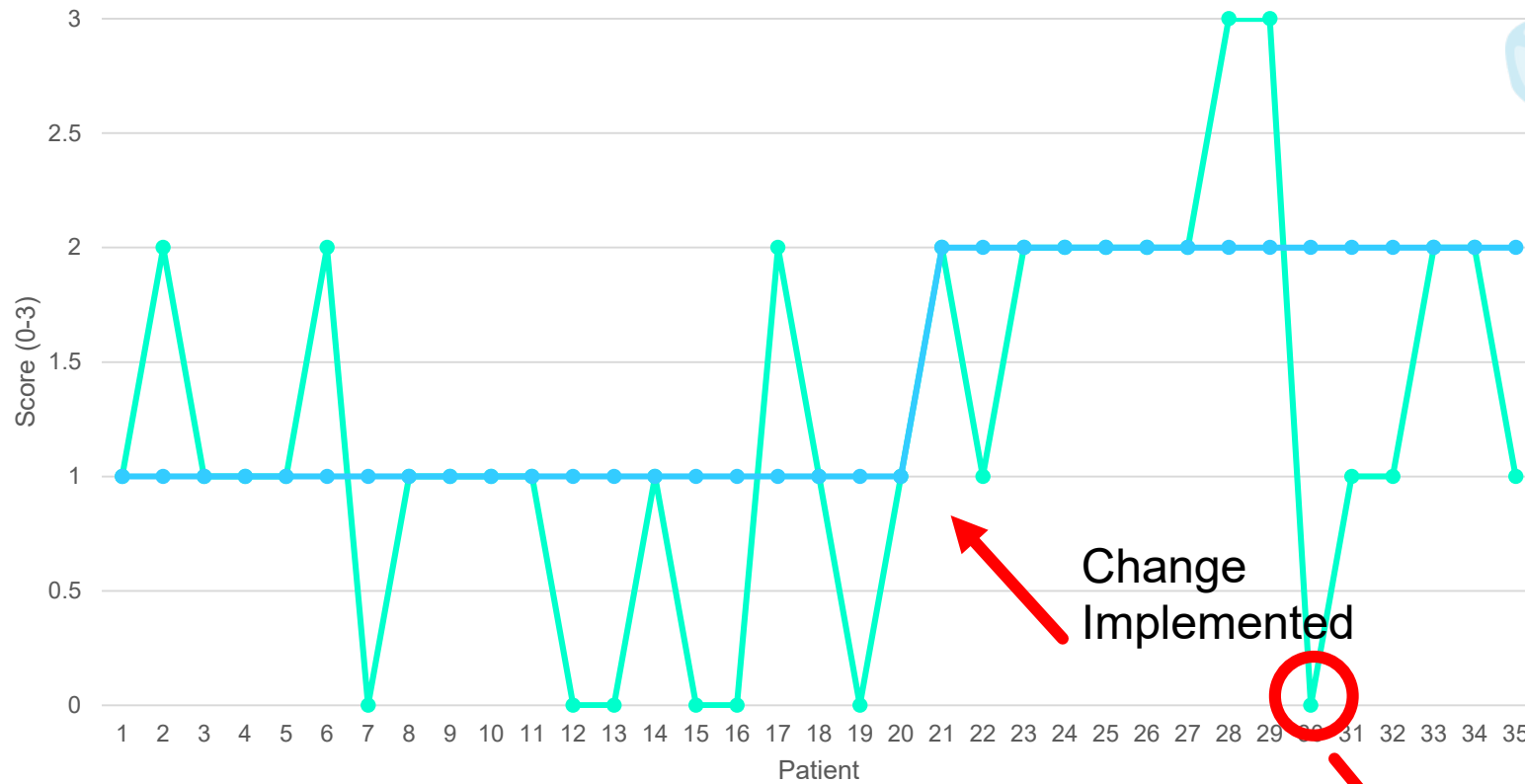


100%

Received tailored
diet advice

All patients with a
completed diet diary
**received tailored
feedback**

Use of Notes Template - OHI



66%

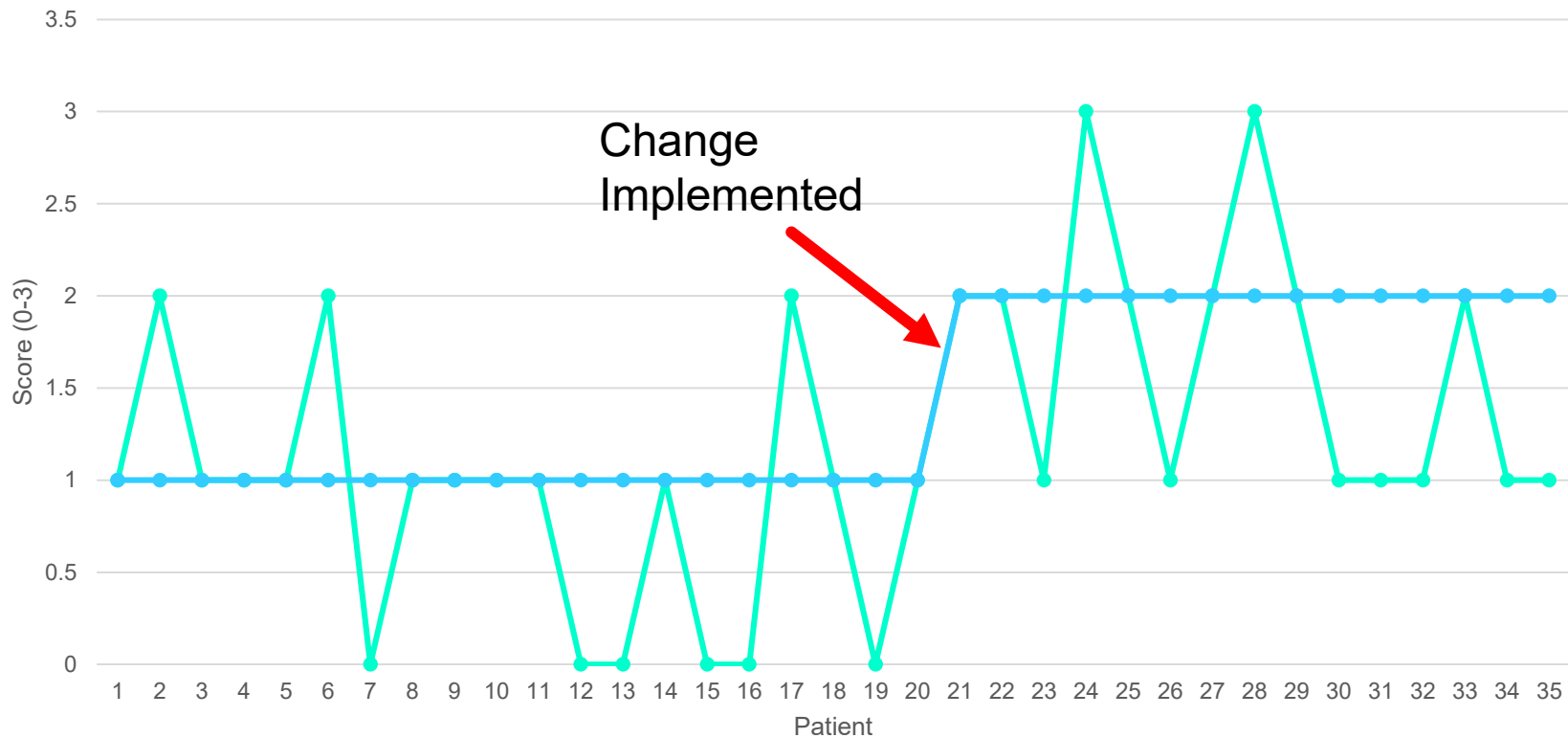
Received tailored
OHI



Use of Notes Template – Diet advice

53%

Received tailored diet advice



Cynllun Gwên

Designed to smile

What Worked Well?

What achieved > 80%?

93%

Received tailored OHI

86%

Received tailored Diet advice

Utilising Dental Nurses



100%

Received tailored diet advice

Incorporating Diet Diaries

My Food and Drinks Diary



Please write down or draw everything you eat and drink in the next three days. Make sure at least one of the days is a Saturday or Sunday

This food and drink diary will help us to offer advice on food and drink choices that are healthier for your teeth!

Day 1 (day)	This is what I've had to eat and drink
Time	

Cynllun Gwên

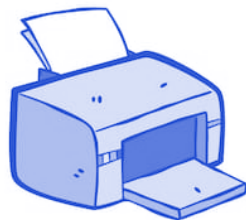
Designed to smile



Stakeholder Analysis



Dental Nurses
OHI delivery



Administrative team
Diet sheet printing



Parents
Encourage patient engagement
Children at pre-cooperative age



GIG
CYMRU
NHS
WALES

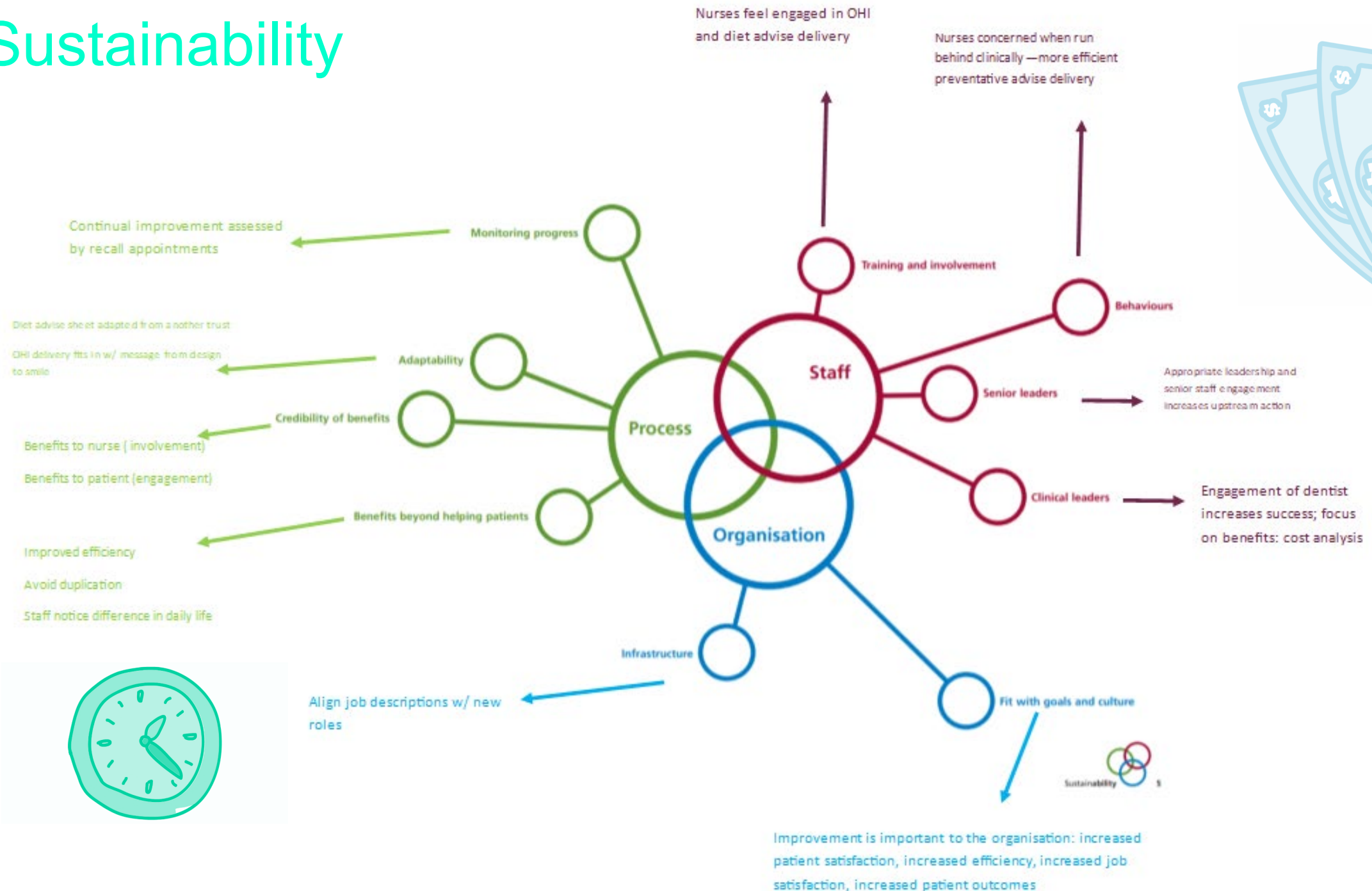
Bwrdd Iechyd Prifysgol
Caerdydd a'r Fro
Cardiff and Vale
University Health Board

**Community dental service /
health board**
Implementation of changes
upstream



Clinician
Planning and Overseeing
process

Sustainability



Human factors

Diet Diary hand out



Design of **healthcare**
systems



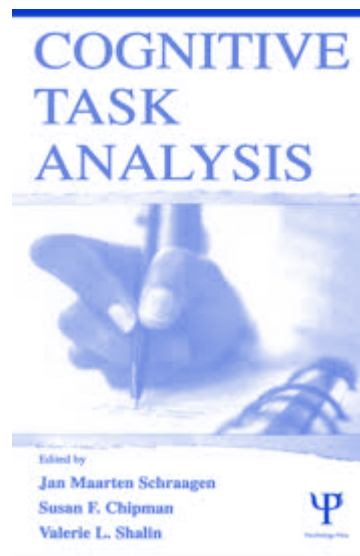
Incident reporting



Enhance
communication



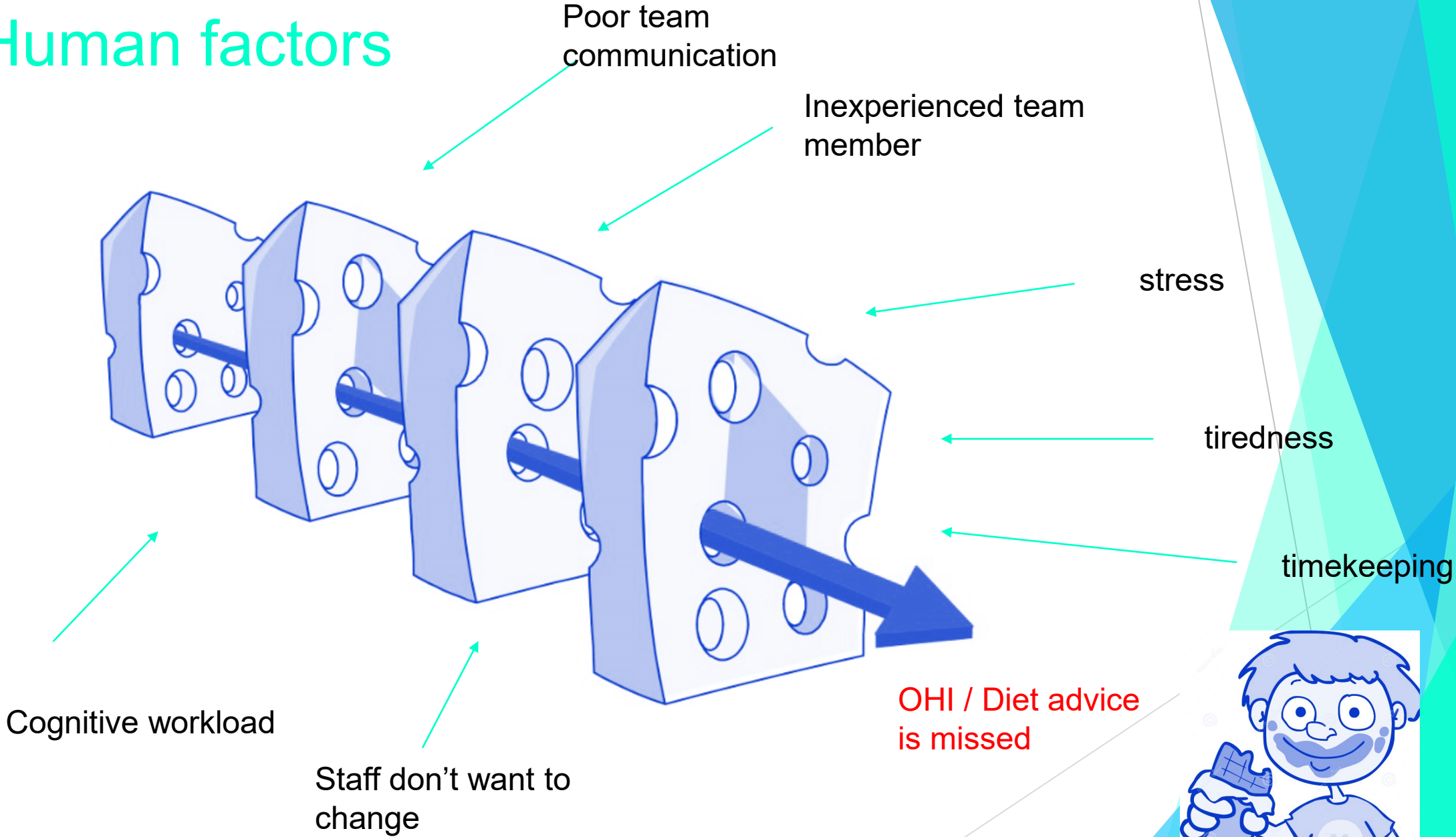
Identify **threats** to patient
safety



Cognitive task analysis
prospective assessment
tools



Human factors



Priorities for further Quality Improvement



Larger scale involvement

- Engage more nurses
- Involve more dentists
- Spread to other health boards
- Upstream measures



Sustainability



Target other age groups: <5 years



Target special patient groups