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**Terminology**

**Health outcome** - “a change in the health status of an individual, group or population which is attributable to a planned intervention” (1).

**Dietetic outcome** – a measured change/resolution of the nutritional ‘problem’ at the end of treatment. This could include, but is not limited to health, for example, the problem could be knowledge or behaviour focused.

**Outcome indicator** – a variable used to measure change in the proposed outcome, usually against reference standards or a baseline. Indicators should be validated where possible.

**Dietetic goal** – a SMART (specific, measurable, achievable, relevant and timely) short-term aim which is set to be achieved by the next consultation or episode of care. These should be informed by evidenced based practice.

**Goal indicator** – a variable used to measure change in the dietetic goal, usually against reference standards or a baseline. Indicators should be validated where possible.

**Patient Reported Experience Measures** (PREM) – a measure of the patients perceived dietetic experience. These will not be covered in the scope of this guideline.

**Patient Reported Outcome Measures** (PROM) - a measure of how the patient perceived the dietetic experience to have impacted on their health. These will not be covered in the scope of this guideline.

**Service level dietetic outcome** – a collation of the dietetic outcomes for all staff members in the service. As these are dietetic outcomes, they will only include the nutritional ‘problem’. This data can be used to evaluate the effectiveness of the service in relation to resolving the nutritional ‘problems’.

**Service level outcome** – a collation of additional outcomes that the service has been commissioned to deliver, examples may include: length of stay, days on ventilator, percentage of service-users achieving weight loss targets, target biochemical change and quality of life. These can be selected using Core Outcome Sets (COS), commissioning groups, service-level agreements and other national, regional and local standards. These will not be covered in the scope of this guideline.

**National level outcome** – defined outcomes to be measured on a national level to assess the success of national health services, identify priorities for making improvements and inform the commissioning of services (2,3,4). These will not be covered in the scope of this guideline.
Introduction

The NHS 5 year forward view (5) highlighted that measuring outcomes helps to “narrow the gap between the best and the worst, whilst raising the bar higher for everyone”. The report identified a 30% difference between clinical commissioning groups in health-related quality of life outcomes for people with more than one long-term condition. One of the recommendations from the 5 year forward view was that programmes must be designed to narrow variation in outcomes and thus reduce health inequalities.

Measuring outcomes enables us to identify processes that are effective as well as those that may need adapting; to improve service-user care and ensure a cost-effective service is provided with resources allocated accordingly (6,7). The measuring of national level outcomes has improved the quality of care in the NHS; evidenced by improving cancer survival rates and declining heart attack and stroke death rates (8).

It is everyone’s role to close the health and wellbeing gap, drive transformation and close the finance and efficiency gap within the NHS.

Whether you are working in healthcare or another area of practice, the BDA Parenteral and Enteral Nutrition Group (PENG) highlighted the following benefits to collating and evaluating outcome data (9):

- For clinicians: supports decision making around the delivery of effective interventions, supports service planning and helps to promote productivity and job satisfaction
- For service users: can demonstrate they are receiving an effective service that makes a difference to their health and quality of life
- For commissioners: can demonstrate they are commissioning the most efficient and effective service

Guideline and framework development

A review of AHP public health outcomes (10) highlighted that a more standardised approach to outcome measures could result in better evidence of effectiveness. By providing a standardised approach, we can evaluate data between services as well as share it with stakeholders involved in decision-making (11). The BDA were aware that outcome collection was fragmented across the profession and there was no standardised approach to use. Therefore, in 2018 the BDA set up an Outcomes Working Group (OWG) to support the standardisation of outcome data collection. The vision of the OWG was to ‘define terminology associated with PENG Dietetic Outcome Toolkit (9), the BDA Model and Process (12) and OWG members’ terminology; and to thereby support members to establish outcome measures within their practice by creating a guidance document’.

In 2019, the entire BDA membership was invited to respond to two surveys. The first survey was to establish:

- What outcome tool(s) members were using
- Whether they developed these tool(s) themselves or used a previously developed tool
- Whether members were using outcome data to influence others and if so, who they were influencing

Limitations of the first survey included a low response rate and no way of knowing whether it was an individual using the tool or a whole department. The second survey therefore was to establish:

- What outcome tool(s) members were using
- Whether they developed these tools themselves or used a previously developed tool
- How many of their colleagues were also using the tool(s)
- Whether members were using outcome data to influence others and if so, who they were influencing

71 members responded of which 19 had developed their own tool. 43 had used their data to influence others, the majority of those they influenced were colleagues and commissioners. When asked in the second survey how many of their colleagues were using the tool, this ranged from one to 25.
This information demonstrated that many departments were creating their own tools and collecting data, but not always using this data to influence others. Although completion rates were low, the additional question on the second survey indicated that outcome usage data had been provided by departments as well as individual members. Additionally, many of our specialist groups also shared their specific outcome tools (see acknowledgement section) as did members of the OWG.

On review of these tools, it became apparent that there was large variation between both the terminology being used, and the type of data being collected. The type of data collected included:
- PREMs
- PROMs
- Dietetic Outcomes
- Service Level Dietetic Outcomes (SLDO)
- Service Level Outcomes (SLO)

All of this data is helpful; however, it must be noted that different tools are used to measure different things:
- A PROM/PREM evaluates the patient (service-user) perspective of the care they received.
- A dietetic outcome identifies whether the practitioner and the service-user have resolved the nutrition and dietetic diagnosis.
- SLDO is a collation of dietetic outcomes and can be used to promote the impact of the service to stakeholders.
- SLOs are core outcomes usually set nationally or by commissioners which the service has been commissioned to meet.

This guidance document provides a standardised approach for collecting and collating dietetic outcome data using the Model and Process for Nutrition and Dietetic Practice (MPNDP) to facilitate this collection.

**The Model and Process for Nutrition and Dietetic Practice and dietetic outcome data collection**

The Model and Process for Nutrition and Dietetic Practice (MPNDP) (9) supports the dietitian to systematically record the integration of knowledge and skills into evidenced-based decision making with the service user at the centre. MPNDP encourages outcomes to be considered as part of this process in order to evidence the dietitian’s contribution to the service users care. The following flowchart helps to clarify how outcome collection fits into the MPNDP.
(The flowchart is broken down into six stages, see below for more information on each stage)
**Assessment** – a systematic process of collecting and interpreting information in order to make decisions about nutritional status and the nature and cause of nutrition related health issues that affect an individual, a group or a population.

**Nutrition and Dietetic Diagnosis** – identification of nutritional problems which may impact on the physical, mental and/or social well-being of an individual, a group or a population and where the dietitian is responsible for action.

Each nutritional problem is then formulated into a Nutrition and Dietetic Diagnosis (NDD) using the following three separate components (known as the ‘PASS statement’):

- **Problem** - identification of the key nutrition related problem(s) that the dietetic intervention will aim to address.
- **Aetiology** - cause of the nutrition related problem(s)
- **Signs and Symptoms** – a cluster of signs and symptoms that evidence the problem

The NDD is: (problem) related to (aetiology) as evidenced by (signs and symptoms).

You may address more than one nutritional problem for each service-user. In such cases it may be beneficial to document each one separately. This will enable you to report on the outcome of whether each one was resolved.

The problem and aetiology both need to be within the scope of dietetic influence. If either are something the dietitian cannot influence i.e. there isn’t a nutritional problem or the aetiology is not within the scope of the dietitian, the service-user(s) would need to be referred to an appropriate practitioner that could support this. When formulating the NDD, bear in mind the following question: why is dietetic expertise required here?

*Individual service-users who are stable on their nutrition therapy may have no nutritional ‘problem’, meaning that there is nothing dietetic to resolve and therefore no proposed outcome can be made. In such cases it may be necessary to question the purpose of the dietetic consultation., In some cases, service-users status may be stable, but at risk of a nutrition related problem. In these cases, the nutrition related ‘problem’ may be prefixed with ‘at risk of...’ and the proposed outcome would be ‘prevention of (the proposed risk)’. The outcome in this case would be met once the service-user is no longer ‘at risk’.**

**Plan** – a proposal of what the dietitian and the service-user(s) want to achieve. The plan includes the following:

- **Proposed outcome** - the dietitian (in collaboration with the service user(s)) decide a proposed outcome*. The outcome is what the dietitian and service user(s) aim to achieve by the end of the intervention. The outcome must relate directly to the nutritional ‘Problem’ section of the dietetic diagnosis.
- **Outcome indicator(s)*** - a parameter or tool that measures a change in status relating to the proposed outcome.
- **Proposed intervention** – the dietitian (in collaboration with the service user(s)) decide on a proposed intervention. This is the type of intervention that will be chosen to meet the proposed outcome, examples may include (but are not limited to): knowledge building, specialised diet or behaviour change.
- **Dietetic goals** – the dietitian in collaboration with the service user(s)) decide on a set of SMART goals to be achieved by the next consultation or episode of care. These should relate to the proposed outcome and must also relate directly to the nutritional ‘Problem’ section of the dietetic diagnosis. In situations where the service user has alternative goals to the dietitian (‘what matters to someone’ is not just ‘what’s the matter with someone” (6)), both the service user goals and the dietetic goals should be documented.
- **Goal indicators** – a parameter or tool that measures a change in relation to the goal. *goal indicators and outcome indicators may sometimes be the same. For example, if your outcome is to achieve 5 percent of weight loss by the end of the intervention, and your goal for the next appointment is to lose 2lb, your indictor for both would be weight. Examples of indicators can be found in the ‘codes’ section of the BDA outcomes framework under ‘Goal/outcome indicator’.*
**Implementation** – a strategy needed in order to achieve the plan. The strategy should relate directly to modifiable aspects of the ‘Aetiology’ (cause) or ‘Signs and Symptoms’ of the dietetic diagnosis. If these steps address the aetiology, they should then contribute to resolving the nutritional problem and thereby achieve the proposed outcome.

**Monitor and Review** – progress towards the goals should be assessed using goal indicators and documented. The implementation strategy should also be reassessed at this stage and modified accordingly. If the service-user requires long-term care, the goals should be reassessed at designated time intervals.

**Evaluation** – during the evaluation stage, outcome indicators should be used to establish whether the proposed outcome has been met. This will either be a ‘yes’ or a ‘no’. The OWG decided that ‘partially met’ would not be included as outcomes should be achievable and therefore ‘met’. If not met, the reason for this should be evaluated. Barriers as well as comments/compliments received should also be documented.

**Example**

**Nutrition and Dietetic diagnosis**

Problem: inadequate oral intake  
Aetiology: self-feeding difficulties and shortness of breath (COPD)  
Signs and symptoms: consuming <50% of meals eaten and reported recent weight loss 5.5%

**Plan**

Proposed outcome: improve inadequate oral intake to achieve nutritional requirements  
Proposed outcome indicator: estimated energy and protein intake  
Proposed intervention: increased energy diet  
SMART goals: meet 50% of energy and protein requirements by next appointment.  
Goal indicators: estimated energy and protein intake

**Implementation**

- Instigate red tray for additional support  
- High-calorie, high-protein snack mid-morning  
- Oral nutritional supplement once daily

**The BDA outcomes framework**

The BDA Outcomes Framework provides a guide for dietitians in collecting and reporting relevant information to evaluate outcomes. Outcome data must be collected and stored in-line with the General Data Protection Regulation (GDPR). See the BDA webpage here for further information.

The columns of the framework provide an outline of the core data required for collecting and evaluating dietetic outcomes. Some columns are ‘free’ text and others are drop down options. The following have drop down options:  
Nutrition related ‘problem’  
Proposed intervention  
Goals  
Barriers

Having drop-down options enables the dietitian to filter data by each drop-down category, for example, filter by ‘problem’. The dietitian or service can then report on how many service-users they have seen with a specific problem. The dietitian can also use the drop-down menu to evaluate other data, such as, whether those that did not achieve their outcome experienced similar barriers.
Service leads can use the spreadsheet to collate and evaluate outcome data inputted by all staff members. This data can then be evaluated for trends, for example, whether there is an associate between those that achieved outcomes and the type of goals that were set. Data can also be pooled to report on ‘service level dietetic outcomes’ for example, ‘the service has provided dietetic interventions to X number of service-users with the following nutrition related problems…and met the outcome for X percentage of service users.

There is a separate ‘codes’ spreadsheet which lists the drop-down options. These can be customised by adding to them or deleting those not required. The drop-down categories for the ‘problem’ and ‘proposed intervention’ have been taken from SNOWMED CT. These will be available for electronic healthcare records. If you have any additional suggestions for either of these, please email these to: edpd@bda.uk.com and we can consider adding these onto SNOWMED CT for the whole profession.

Please note, this data collection is for evaluating outcomes only so will need to be collected alongside your current service-user records. We are working towards this information being automatically generated once we are using digital healthcare.
Further reading

**BDA Dietetic and Nutrition Case Studies Book** – provides practical examples of the Model and Process for Nutrition and Dietetic Practice

**Practice-based Evidence in Nutrition** – Practice Guidance Toolkits in PEN provide examples of PASS statements and Nutrition and Dietetic Diagnosis

**NHS Education for Scotland - The Health Literacy Place** – online tools and resources for healthcare professionals to support improved health literacy

**NHS Health Education England - Educating and training the workforce** - online tools and resources for healthcare professionals to support improved health literacy

**COMET initiative** - agreed standardised core outcome sets for certain conditions

Key questions to ask when selecting outcome measures: a checklist for allied health professionals – a checklist to assist individual AHPs and teams with selecting appropriate outcome measures.
References