







2. In 2017, a group of 7 healthcare students from Bournemouth University agreed to **develop the Patients Association Nutrition Checklist into an initial prototype** as part of their ‘Service Improvement Project’





3. The students **obtained some initial feedback** from 7 volunteers in lunch clubs and 12 service users in Dorset. The following feedback was received:

- Design was easy to understand and straightforward to use – with or without volunteer
- The Nutrition Wheel was a ‘friendly’ way to have the conversation
- The service users liked the signposting advice on the advice sheet, and especially liked the inclusion of national helpline numbers



4. The Nutrition Wheel was **further amended** with support from a professional design company. In early 2018, **100 were printed for piloting purposes**. An information/advice sheet was also produced





5. **Ethical approval received** in early 2018 from Bournemouth University and the University of Southampton to validate the 4 key questions around the outer edge of the Nutrition Wheel against ‘MUST’ (Malnutrition Universal Screening Tool) – *these are the same 4 questions that make up Section A of the Patients Association Nutrition Checklist*

- 312 older people recruited from lunch and activity clubs in Hampshire & Dorset
- 22% of people ‘at risk’ using the 4 questions, compared to 9.9% of people ‘at risk’ using ‘MUST’. There were 4 people at risk according to ‘MUST’ but not identified by the 4 questions – however these people reported no change in weight and that they had always been slim
- The 4 questions have ‘moderate’ agreement with ‘MUST’ (*sensitivity: 85.4%, specificity: 87.1%*)
- The research concluded that the 4 questions were able to identify people who should be signposted to their GP / Practice Nurse for further advice and screening



6. **Bournemouth University Research Ethics approval received to pilot the Nutrition Wheel** in 2018 with 17 volunteers from community organisations across Hampshire and Dorset. Evaluation was carried out through 10 focus groups and interviews to understand the feasibility and acceptability of the Nutrition Wheel. Transcriptions from interviews analysed using thematic analysis.

- All volunteers felt the Wheel was an excellent conversation starter
- 5 volunteers gave positive feedback on the structure of the questions
- 4 volunteers felt that several questions were repetitive
- 3 volunteers felt the wording should be changed to make it less 'clinical'
- Several volunteers suggested that design changes to make the Nutrition Wheel easier to navigate, e.g. the addition of question numbering and use of contrasting colours
- All volunteers liked the advice sheet, which provided a written copy of the advice given



7. Findings from the research informed the **development of the final version**. The Nutrition Wheel was launched in July 2019 in the Wessex region, and will be launched nationally in September through the Malnutrition Task Force

### NUTRITION WHEEL

This tool is intended to be used as a conversation starter to help identify people likely to be at increased risk of undernutrition and provide simple advice and signposting to help them

**INSTRUCTIONS FOR USE**

1. Turn over the Wheel and ask questions 1-4 on the outer edge of the Wheel. If 'no' is answered to all these questions, the person is unlikely to be at risk and no further action is required. If 'yes' or 'don't know' is answered to any of these questions, move to the inner questions (labelled A to D)
2. Ask the inner questions (A-D). If they answer 'yes' to any of these, twist the Wheel so the inner question they answered 'yes' to is aligned to the arrow (on the outer wheel)
3. Turn the wheel back over; the corresponding advice and signposting will be shown in the window
4. If the person answers 'yes' to multiple questions, the process can be repeated as many times as needed
5. If the person answered 'yes' or 'don't know' to any of the outer questions, provide the person with the accompanying advice sheet, indicating the section(s) relevant to them

**A**

- Increase your calorie and protein intake, e.g. include snacks and milky drinks between meals, use full fat dairy products, fortify foods, try food supplements which can be bought from your pharmacy or supermarket
- If you've had unplanned weight loss, visit your GP or Practice Nurse

AMN0004/06/18

**2. Have you lost a lot of weight unintentionally in the past 3-6 months?**

**3. Have you noticed that your clothes or rings have become loose recently?**

**4. Have you recently lost your appetite and/or interest in eating?**

**1. Are you or your family concerned that you may be underweight or need nutritional advice?**

**A** If you are underweight, had unplanned weight loss, or are losing weight, do you know what food and drinks you should be having? (turn the Wheel over for advice)

**B** Are you finding it difficult to drink or to drink enough?

**C** Do you have difficulty cutting food, swallowing food, or do you cough while eating or have difficulty chewing food?

**D** Do you live alone? AND/OR Are you concerned about your ability to shop for food, cook, meal prep or budget for food?

Produced with support from **MALNUTRITION TASK FORCE**

Developed by students from Bournemouth University in conjunction with Wessex AHSN

**nutrition checklist**

**Wessex** Academic Health Science Network