

## Malnutrition Overview

While malnutrition can refer to either over or undernutrition **this document refers specifically to undernutrition**; a deficiency of energy, protein and other nutrients that causes adverse effects on the body (shape, size and composition), the way it functions and clinical outcomes<sup>3</sup>. Most malnutrition is disease-related, although some social and mechanical (e.g. dentition) factors can also have an impact<sup>4</sup>.

### Size of the problem

- At any point in time more than 3 million people in the UK are malnourished or at risk of malnutrition, most (~93%) live in the community<sup>5</sup>

### Malnutrition (undernutrition) affects:

- 35% of people recently admitted to care homes<sup>6</sup>
- 29% of adults on admission to hospital<sup>7</sup>
- 30% attending hospital outpatients<sup>8</sup>
- 11% of people at GP practices<sup>9</sup>

### Clinical consequences of malnutrition

- Increased falls risk<sup>12,13</sup>
- Impaired recovery from illness and surgery<sup>4</sup>
- Poorer clinical outcomes e.g. higher mortality<sup>4</sup>
- Impaired immune response<sup>4</sup>
- Reduced muscle strength<sup>4</sup> and frailty<sup>10,11</sup>
- Impaired wound healing<sup>4</sup>
- Impaired psycho-social function<sup>4</sup>

### Cost implications of malnutrition

The healthcare cost of managing individuals with malnutrition is three to four times greater than that of managing non-malnourished individuals, due to higher use of healthcare resources<sup>1</sup>.

#### Malnourished people have<sup>1</sup>:



**Malnutrition costs in excess of £19 billion per annum in England alone**, based on malnutrition prevalence figures and the associated costs of both health and social care<sup>1</sup> (based on 2012 data).

- This breaks down to a cost of over £90 million per CCG based on 207 CCGs in England<sup>1,2</sup>
- It is estimated that the cost of healthcare for a malnourished patient is £5763 (based on the point prevalence of malnutrition and annual expenditure on malnutrition) and £1645 for social care compared to that for non-malnourished patients of £1715 and £440, respectively<sup>1</sup>

### Tackling malnutrition can improve nutritional status and clinical outcomes and reduce health care use and associated costs<sup>1</sup>.

- The National Institute of Health and Care Excellence has shown substantial cost savings can result from identifying and treating malnutrition: implementation of the Clinical Guideline 32: Nutrition Support for Adults<sup>14</sup> and supporting Quality Standard 24<sup>15</sup> have been shown to be high impact with respect to cost savings<sup>16</sup>
- The cost of managing malnutrition using prescribable nutrition support (including oral nutritional supplements, tube feeds and parenteral nutrition) is low at <2.5% of the total expenditure on malnutrition<sup>17</sup>

### Groups at risk of malnutrition include those with:

**Chronic disease<sup>4,5</sup> (consider acute episodes):** chronic obstructive pulmonary disease (COPD), cancer, gastrointestinal disease, renal or liver disease and inflammatory conditions such as rheumatoid arthritis, inflammatory bowel disease

**Progressive neurological disease<sup>5</sup>:** dementia, Parkinson's disease, motor neurone disease (MND)

**Acute illness<sup>5</sup>:** where adequate food is not being consumed for more than 5 days (more commonly seen in a hospital than a community setting)

**Debility<sup>4</sup>:** frailty, immobility, old age, depression, recent discharge from hospital

**Social issues<sup>5</sup>:** poor support, housebound, difficulty obtaining or preparing food

**Rehabilitation:** after stroke<sup>5</sup>, injury<sup>4</sup>, cancer treatment<sup>4</sup>

**End of Life/Palliative Care<sup>18,19</sup>:** tailor and adjust advice according to phase of illness