



**nutritionDay**  
WORLDWIDE

*Country Report*  
*nutritionDay 2018*  
*Sweden*

Dear participant,

Thank you for your participation in nutritionDay worldwide in 2018 and for your effort. We are now able to present you your country report of the following sample size:

|   |            |
|---|------------|
| <b>Number of participated center:</b>                     | <b>2</b>   |
| <b>Number of participated units:</b>                      | <b>12</b>  |
| <b>Number of patients who gave consent:</b>               | <b>133</b> |
| <b>Number of patients completing Sheet 3a:</b>            | <b>129</b> |
| <b>Number of patients completing Sheet 3b:</b>            | <b>128</b> |
| <b>Number of patients with 30-day outcome assessment:</b> | <b>128</b> |

This report compares your country data to international reference database based on data from nutritionDay 2016 and 2017.

The report consists of 4 parts:

Part I reflects capacity and staffing of your hospitals.

Part II reflects the organisation and the structure of the units.

Part III describes the patient's demographics, the clinical information and the outcome.

Part IV is the summary of information on patient's nutrition, history and health status.

**Next year's nutritionDay will take place in November 2019. Again, we would very much appreciate your participation. You will be provided with further information on a regular basis.**

Best regards from the nutritionDay-Team!

Prof. Dr. Michael Hiesmayr

Sigrid Moick, MA

## I. Hospital capacity and staffing ("Hospital sheet")

|  | YOUR RESULTS        | REFERENCE RESULTS  |
|--|---------------------|--------------------|
| <b>1. Total number of beds in hospital</b>   | 658 [418-899]       | 317 [188-615]      |
| <b>2. Total number of admissions in the hospital last year</b>   | 37453 [24578-50329] | 17520 [8982-34767] |
| <b>3. Total number of staff in the hospital</b>  |                     |                    |
| Total medical doctors  | 1364 [821-1908]     | 170 [78-396]       |
| Medical specialists  | 695 [420-971]       | 117 [54-244]       |
| Medical non-specialists  | 346 [211-480]       | 35 [11-82]         |
| Nurses   | 2760 [1655-3865]    | 418 [195-800]      |
| Dieticians   | 29 [16-42]          | 5 [2-9]            |
| Nutritionists  | -                   | 1 [0-4]            |
| Pharmacists  | 6                   | 7 [4-22]           |
| Kitchen staff  | 22                  | 30 [14-55]         |
| <b>Full time equivalent</b>  |                     |                    |
| Total medical doctors  | 180                 | 139 [60-368]       |
| Medical specialists  | 649 [370-927]       | 98 [48-245]        |
| Medical non-specialists  | 259 [153-364]       | 34 [11-87]         |
| Nurses   | 2570 [1449-3690]    | 350 [187-778]      |
| Dieticians   | 28 [16-41]          | 4 [2-8]            |
| Nutritionists  | -                   | 1 [0-3]            |
| Pharmacists  | 4                   | 6 [3-18]           |
| Kitchen staff  | 10                  | 27 [14-50]         |
| <b>4. Does the hospital have a nutrition care strategy?</b>  | 2 (100%) Yes        | 351 (78.7%) Yes    |
| <b>5. Which nutrition-related standards or routine activities exist in your hospital?</b>                    |                     |                    |
| Nutrition training is available  | 1 (50.0%) Yes       | 298 (66.8%) Yes    |
| Nutrition steering committee is available  | -                   | 280 (62.8%) Yes    |
| Quality indicators are recorded and reported to national or regional level                                   | 2 (100%) Yes        | 193 (43.3%) Yes    |
| Quality indicators are used for internal benchmarking  | 2 (100%) Yes        | 235 (52.7%) Yes    |
| Patient feedback about food and food service is collected using a questionnaire                              | 1 (50.0%) Yes       | 337 (75.6%) Yes    |
| None   | -                   | 19 (4.3%) Yes      |
| No answer given  | -                   | -                  |
| <b>6. Which codes are available /routinely used in your hospital for billing and reimbursement purposes?</b> |                     |                    |
| <b>Codes available</b>   |                     |                    |
| Nutrition Support  | 1 (50.0%) Yes       | 216 (48.4%) Yes    |
| Oral nutrition supplements   | -                   | 165 (37.0%) Yes    |

|   |               |                 |
|---|---------------|-----------------|
| Parenteral nutrition                                      | 1 (50.0%) Yes | 255 (57.2%) Yes |
| Enteral nutrition   | 1 (50.0%) Yes | 224 (50.2%) Yes |
| Dietary counseling  | 1 (50.0%) Yes | 166 (37.2%) Yes |
| Specific dietary interventions                            | 1 (50.0%) Yes | 119 (26.7%) Yes |
| Screening for malnutrition                                | -             | 119 (26.7%) Yes |
| Risk of malnutrition                                      | 1 (50.0%) Yes | 103 (23.1%) Yes |
| Malnutrition (in general)                                 | 1 (50.0%) Yes | 203 (45.5%) Yes |
| Severity of malnutrition (i.e. mild, moderate, severe)    | -             | 195 (43.7%) Yes |
| No information available from billing/finance/controlling | 1 (50.0%) Yes | 75 (16.8%) Yes  |
| No answer given   | -             | 18 (4.0%)       |

### Codes routinely used

|   |               |                 |
|---|---------------|-----------------|
| Nutrition Support   | -             | 188 (42.2%) Yes |
| Oral nutrition supplements                                | -             | 143 (32.1%) Yes |
| Parenteral nutrition                                      | 1 (50.0%) Yes | 233 (52.2%) Yes |
| Enteral nutrition   | 1 (50.0%) Yes | 205 (46.0%) Yes |
| Dietary counseling  | -             | 140 (31.4%) Yes |
| Specific dietary interventions                            | 1 (50.0%) Yes | 105 (23.5%) Yes |
| Screening for malnutrition                                | -             | 95 (21.3%) Yes  |
| Risk of malnutrition                                      | 1 (50.0%) Yes | 80 (17.9%) Yes  |
| Malnutrition (in general)                                 | 1 (50.0%) Yes | 176 (39.5%) Yes |
| Severity of malnutrition (i.e. mild, moderate, severe)    | -             | 169 (37.9%) Yes |
| No information available from billing/finance/controlling | 1 (50.0%) Yes | 81 (18.2%) Yes  |
| No answer given   | -             | 29 (6.5%)       |

## II. Unit organisation and structures ("Sheet 1a/1b")

|  | YOUR RESULTS | REFERENCE RESULTS |
|--|--------------|-------------------|
| Internal Medicine / General  | 1 (8.3%)     | 19.3%             |
| Internal Medicine / Cardiology   | -            | 4.5%              |
| Internal Medicine / Gastroenterology & hepatology                            | 1 (8.3%)     | 6.3%              |
| Internal Medicine / Geriatrics   | 1 (8.3%)     | 7.9%              |
| Internal Medicine / Infectious diseases                                      | -            | 0.5%              |
| Internal Medicine / Nephrology   | -            | 1.3%              |
| Internal Medicine / Oncology (incl. radiotherapy)                            | -            | 7.2%              |
| Interdisciplinary  | -            | 3.3%              |
| Long term care   | -            | 2.0%              |
| Neurology  | 3 (25.0%)    | 3.6%              |
| Surgery / General  | 4 (33.3%)    | 13.5%             |
| Surgery/ Cardiac/Vascular/Thoracic   | -            | 2.1%              |
| Surgery / Neurosurgery   | -            | 1.0%              |
| Surgery / Orthopedic   | 1 (8.3%)     | 4.2%              |
| Trauma   | -            | 1.4%              |
| Ear Nose Throat (ENT)  | 1 (8.3%)     | 1.8%              |
| Gynecology / Obstetrics  | -            | 1.6%              |
| Pediatrics   | -            | 1.3%              |
| Psychiatry   | -            | 0.9%              |
| Others   | -            | 16.1%             |
| <b>2. Number of registered inpatients at noon</b>                            | 15 [11-20]   | 24 [18-31]        |
| <b>3. Total bed capacity of the unit</b>                                     | 20 [17-22]   | 30 [24-38]        |
| <b>4. Number of each type of staff in the unit for TODAY's morning shift</b> |              |                   |
| <b>Fully trained</b>   |              |                   |
| Medical doctors  | 5 [4-6]      | 3 [2-7]           |
| Nurses   | 4 [4-5]      | 5 [3-8]           |
| Nursing aides  | 5 [4-5]      | 2 [1-3]           |
| Dieticians   | 1 [0-1]      | 1 [0-1]           |
| Nutritionists  | 0 [0-0]      | 0 [0-1]           |
| Administrative staff   | 2 [2-3]      | 1 [0-1]           |
| Other staff involved in patient care   | 2 [2-3]      | 1 [0-2]           |
| <b>In training</b>   |              |                   |
| Medical doctors  | 2 [2-2]      | 1 [0-3]           |
| Medical students   | 1 [1-1]      | 0 [0-2]           |
| Nurses   | 1 [1-2]      | 1 [0-3]           |

|                                      |         |         |
|--------------------------------------|---------|---------|
| Nursing aides                        | 1       | 0 [0-0] |
| Dieticians                           | -       | 0 [0-0] |
| Nutritionists                        | -       | 0 [0-0] |
| Other staff involved in patient care | 2 [2-2] | 0 [0-0] |

**5. Is there a nutrition support team in your hospital available?** 12 (100%) Yes 705 (76.4%) Yes

**6. Does the unit have a nutrition care strategy?** 12 (100%) Yes 678 (73.5%) Yes

**7. Is there a person in your unit responsible for nutrition care?** 12 (100%) Yes 644 (69.8%) Yes

**8. Is there a dietician, nutritionist or dietetic assistant available for your unit?** 12 (100%) Yes 831 (90.0%) Yes

**9. Is specific staff responsible for providing feeding assistance to patients during meal times?** 5 (41.7%) Yes 575 (62.3%) Yes

10. How do you MAINLY screen/monitor patients for malnutrition?

**At admission**

|  |               |                 |
|--|---------------|-----------------|
| No routine screening                         | -             | 85 (8.8%) Yes   |
| No fixed criteria                            | -             | 14 (1.4%) Yes   |
| Experience / visual assessment only          | -             | 77 (7.9%) Yes   |
| Weighing / BMI only                          | -             | 141 (14.5%) Yes |
| Nutritional Risk Screening (NRS) 2002        | -             | 309 (31.9%) Yes |
| Malnutrition Universal Screening Tool (MUST) | -             | 59 (6.1%) Yes   |
| Malnutrition Screening tool (MST)            | -             | 70 (7.2%) Yes   |
| SNAQ   | -             | 11 (1.1%) Yes   |
| Other formal tool                            | 12 (100%) Yes | 148 (15.3%) Yes |
| I do not know                                | -             | 9 (0.93%) Yes   |
| Missing                                      | -             | 47 (4.8%)       |

**During hospital stay**

|                                     |               |                 |
|-------------------------------------|---------------|-----------------|
| No routine monitoring               | -             | 88 (9.1%) Yes   |
| No fixed criteria                   | -             | 77 (7.9%) Yes   |
| Experience / visual assessment only | -             | 174 (17.9%) Yes |
| Weighing / BMI only                 | 6 (50.0%) Yes | 313 (32.3%) Yes |
| Other formal tool                   | 6 (50.0%) Yes | 251 (25.9%) Yes |
| I do not know                       | -             | 20 (2.1%) Yes   |
| Missing                             | -             | 47 (4.8%)       |

**11a. Do you routinely use guidelines or standards for nutrition care?** 12 (100%) Yes 724 (80.0%) Yes

**11b. If yes, which one is mainly used?**

|   |               |                 |
|---|---------------|-----------------|
| International guidelines                | -             | 186 (25.7%) Yes |
| National guidelines                     | 8 (66.7%) Yes | 105 (14.5%) Yes |
| Standards on hospital level             | 1 (8.3%) Yes  | 249 (34.4%) Yes |
| Standards on unit level                 | -             | 51 (7.0%) Yes   |
| Individual patient nutrition care plans | 3 (25.0%) Yes | 116 (16.0%) Yes |
| Other                                   | -             | 7 (0.97%) Yes   |
| Missing                                 | -             | 10 (1.4%)       |

**12. What is routinely done in your unit for given patient groups?****At risk**

|  |                |                 |
|--|----------------|-----------------|
| Watchful waiting   | 6 (50.0%) Yes  | 281 (29.0%) Yes |
| Discuss nutrition care activities during ward rounds       | 8 (66.7%) Yes  | 430 (44.3%) Yes |
| Develop an individual nutrition care plan                  | 11 (91.7%) Yes | 509 (52.5%) Yes |
| Initiate treatment / nutrition intervention                | 11 (91.7%) Yes | 582 (60.0%) Yes |
| Consult a nutrition expert (dietician, nutritionist, etc.) | 10 (83.3%) Yes | 592 (61.0%) Yes |
| Consult a medical professional                             | 8 (66.7%) Yes  | 383 (39.5%) Yes |
| Calculate energy requirements                              | 5 (41.7%) Yes  | 479 (49.4%) Yes |
| Calculate protein requirements                             | 5 (41.7%) Yes  | 466 (48.0%) Yes |

**Malnourished**

|  |                |                 |
|--|----------------|-----------------|
| Watchful waiting   | 2 (16.7%) Yes  | 196 (20.2%) Yes |
| Discuss nutrition care activities during ward rounds       | 9 (75.0%) Yes  | 462 (47.6%) Yes |
| Develop an individual nutrition care plan                  | 11 (91.7%) Yes | 541 (55.8%) Yes |
| Initiate treatment / nutrition intervention                | 9 (75.0%) Yes  | 624 (64.3%) Yes |
| Consult a nutrition expert (dietician, nutritionist, etc.) | 11 (91.7%) Yes | 581 (59.9%) Yes |
| Consult a medical professional                             | 8 (66.7%) Yes  | 411 (42.4%) Yes |
| Calculate energy requirements                              | 10 (83.3%) Yes | 537 (55.4%) Yes |
| Calculate protein requirements                             | 8 (66.7%) Yes  | 522 (53.8%) Yes |

**Every patient**

|  |               |                 |
|--|---------------|-----------------|
| Watchful waiting   | 5 (41.7%) Yes | 483 (49.8%) Yes |
| Discuss nutrition care activities during ward rounds       | 1 (8.3%) Yes  | 258 (26.6%) Yes |
| Develop an individual nutrition care plan                  | -             | 184 (19.0%) Yes |
| Initiate treatment / nutrition intervention                | -             | 135 (13.9%) Yes |
| Consult a nutrition expert (dietician, nutritionist, etc.) | -             | 185 (19.1%) Yes |
| Consult a medical professional                             | 1 (8.3%) Yes  | 209 (21.5%) Yes |
| Calculate energy requirements                              | 1 (8.3%) Yes  | 123 (12.7%) Yes |
| Calculate protein requirements                             | -             | 113 (11.6%) Yes |

**Never**

|  |              |               |
|--|--------------|---------------|
| Watchful waiting                                     | -            | 76 (7.8%) Yes |
| Discuss nutrition care activities during ward rounds | 1 (8.3%) Yes | 62 (6.4%) Yes |

|  |               |                 |
|--|---------------|-----------------|
| Develop an individual nutrition care plan                  | -             | 50 (5.2%) Yes   |
| Initiate treatment / nutrition intervention                | 1 (8.3%) Yes  | 13 (1.3%) Yes   |
| Consult a nutrition expert (dietician, nutritionist, etc.) | -             | 16 (1.6%) Yes   |
| Consult a medical professional                             | 1 (8.3%) Yes  | 106 (10.9%) Yes |
| Calculate energy requirements                              | -             | 103 (10.6%) Yes |
| Calculate protein requirements                             | 2 (16.7%) Yes | 124 (12.8%) Yes |

### I do not know

|  |              |               |
|--|--------------|---------------|
| Watchful waiting   | 1 (8.3%) Yes | 51 (5.3%) Yes |
| Discuss nutrition care activities during ward rounds       | -            | 40 (4.1%) Yes |
| Develop an individual nutrition care plan                  | -            | 22 (2.3%) Yes |
| Initiate treatment / nutrition intervention                | -            | 22 (2.3%) Yes |
| Consult a nutrition expert (dietician, nutritionist, etc.) | -            | 18 (1.9%) Yes |
| Consult a medical professional                             | -            | 51 (5.3%) Yes |
| Calculate energy requirements                              | -            | 40 (4.1%) Yes |
| Calculate protein requirements                             | -            | 42 (4.3%) Yes |

### 13. When do you routinely weigh your patients?

|                 |               |                 |
|-----------------|---------------|-----------------|
| at admission    | 9 (75.0%) Yes | 625 (64.4%) Yes |
| Within 24 hours | 4 (33.3%) Yes | 142 (14.6%) Yes |
| Within 48 hours | 1 (8.3%) Yes  | 54 (5.6%) Yes   |
| Within 72 hours | -             | 27 (2.8%) Yes   |
| Every week      | 3 (25.0%) Yes | 393 (40.5%) Yes |
| Occasionally    | 2 (16.7%) Yes | 109 (11.2%) Yes |
| When requested  | 9 (75.0%) Yes | 483 (49.8%) Yes |
| At discharge    | 1 (8.3%) Yes  | 52 (5.4%) Yes   |
| Never           | -             | 13 (1.3%) Yes   |
| I do not know   | -             | 4 (0.41%) Yes   |
| No answer given | 10 (41.7%)    | 50 (5.2%)       |

### 14. What do you do to support adequate food intake of patients?

|   |                |                 |
|---|----------------|-----------------|
| Offer additional meals or in between snacks                     | 12 (100%) Yes  | 730 (75.3%) Yes |
| Offer meal choices  | 10 (83.3%) Yes | 711 (73.3%) Yes |
| Offer different portion sizes                                   | 12 (100%) Yes  | 635 (65.5%) Yes |
| Consider food presentation                                      | 8 (66.7%) Yes  | 356 (36.7%) Yes |
| Change food texture/consistency as needed                       | 10 (83.3%) Yes | 797 (82.2%) Yes |
| Consider patient problems with eating and drinking              | 12 (100%) Yes  | 793 (81.8%) Yes |
| Ensure that mealtimes are undisturbed/protected mealtime policy | 4 (33.3%) Yes  | 218 (22.5%) Yes |
| Promote positive eating environment                             | 8 (66.7%) Yes  | 281 (29.0%) Yes |
| Consider cultural/religious preferences                         | 11 (91.7%) Yes | 559 (57.6%) Yes |
| Consider patient allergies / intolerances                       | 12 (100%) Yes  | 650 (67.0%) Yes |
| Other   | 1 (8.3%) Yes   | 74 (7.6%) Yes   |
| I do not know   | 1 (8.3%) Yes   | 19 (2.0%) Yes   |
| No answer given   | -              | 48 (4.9%)       |

### 15. Which nutrition-related standards or routine activities exist in your unit?

|   |               |                 |
|---|---------------|-----------------|
| Nutrition training is available   | 5 (41.7%) Yes | 558 (57.5%) Yes |
| Reporting of nutrition related information to hospital managers                 | 9 (75.0%) Yes | 408 (42.1%) Yes |
| Quality indicators are recorded and reported to national or regional level      | 8 (66.7%) Yes | 302 (31.1%) Yes |
| Quality indicators are used for internal benchmarking                           | 8 (66.7%) Yes | 358 (36.9%) Yes |
| Patient feedback about food and food service is collected using a questionnaire | 3 (25.0%) Yes | 625 (64.4%) Yes |
| None  | -             | 32 (3.3%) Yes   |
| I do not know   | -             | 38 (3.9%) Yes   |
| No answer given   | -             | 68 (7.0%)       |

### 16. At admission what is asked and documented?

|                            |               |                 |
|----------------------------|---------------|-----------------|
| Change in weight           | 12 (100%) Yes | 775 (79.9%) Yes |
| Eating habits/difficulties | 12 (100%) Yes | 746 (76.9%) Yes |
| Nutrition before admission | 7 (58.3%) Yes | 592 (61.0%) Yes |
| None                       | -             | 15 (1.5%) Yes   |
| I do not know              | -             | 20 (2.1%) Yes   |
| No answer given            | -             | 70 (7.2%)       |

### 17. On what forms is there a specific part about eating, nutrition or malnutrition?

#### a. Patient Record has a section for ...

|  |               |                 |
|--|---------------|-----------------|
| indicating if the patient is malnourished or at risk of malnutrition | 12 (100%) Yes | 708 (73.0%) Yes |
| nutrition treatment  | 12 (100%) Yes | 582 (60.0%) Yes |
| None   | -             | 54 (5.6%) Yes   |
| I do not know  | -             | 26 (2.7%) Yes   |

#### b. Discharge Letter ...

|   |               |                 |
|---|---------------|-----------------|
| summarizes nutrition treatment received during stay | 7 (58.3%) Yes | 407 (42.0%) Yes |
| makes future nutrition-related recommendations      | 5 (41.7%) Yes | 572 (59.0%) Yes |
| None  | -             | 110 (11.3%) Yes |
| I do not know                                       | 3 (25.0%) Yes | 69 (7.1%) Yes   |

|  |               |                 |
|--|---------------|-----------------|
| <b>18. Do you provide brochures about malnutrition to at risk/malnourished patients?</b> | 4 (33.3%) Yes | 356 (44.8%) Yes |
|--|---------------|-----------------|

### 19. Who filled in this sheet?

|                      |               |                 |
|----------------------|---------------|-----------------|
| Head staff           | -             | 281 (29.0%) Yes |
| Dietician            | 1 (8.3%) Yes  | 517 (53.3%) Yes |
| Nurse                | 9 (75.0%) Yes | 279 (28.8%) Yes |
| Physician            | -             | 128 (13.2%) Yes |
| Administrative staff | -             | 8 (0.82%) Yes   |



|               |                |               |
|---------------|----------------|---------------|
| Other         | 10 (83.3%) Yes | 39 (4.0%) Yes |
| None          | -              | -             |
| I do not know | -              | 7 (0.72%) Yes |

### III. Patient demographics, medical information & Outcome ("Sheet 2a/2b")

|        | YOUR RESULTS | REFERENCE RESULTS |
|--------|--------------|-------------------|
| Total  | 133          | 17827             |
| Age    | 73 [62-79]   | 67 [53-78]        |
| Female | 60 (45.1%)   | 8951 (50.2%)      |
| Weight | 78.2±19.7    | 70.1±19.2         |
| Height | 172±10       | 165±10            |
| BMI    | 26.3±5.7     | 25.5±6.0          |

#### 1. This hospital admission was...

|                 |            |              |
|-----------------|------------|--------------|
| planned         | 23 (17.3%) | 6798 (38.1%) |
| an emergency    | 89 (66.9%) | 9562 (53.6%) |
| I do not know   | 21 (15.8%) | 1467 (8.2%)  |
| No answer given | -          | -            |

#### 2a. Diagnosis at admission

|  |            |              |
|--|------------|--------------|
| 0100 Infectious and parasitic diseases   | 15 (11.3%) | 1555 (8.7%)  |
| 0200 Neoplasms   | 33 (24.8%) | 3133 (17.6%) |
| 0300 Blood and bloodforming organs and the immune mechanism                          | 3 (2.3%)   | 1159 (6.5%)  |
| 0400 Endocrine, nutritional and metabolic diseases                                   | 11 (8.3%)  | 2190 (12.3%) |
| 0500 Mental health   | 1 (0.75%)  | 851 (4.8%)   |
| 0600 Nervous system  | 16 (12.0%) | 1636 (9.2%)  |
| 0700 Eye and adnexa  | 3 (2.3%)   | 236 (1.3%)   |
| 0800 Ear and mastoid process   | 1 (0.75%)  | 127 (0.71%)  |
| 0900 Circulatory system  | 40 (30.1%) | 3801 (21.3%) |
| 1000 Respiratory system  | 10 (7.5%)  | 2810 (15.8%) |
| 1100 Digestive system  | 25 (18.8%) | 4343 (24.4%) |
| 1200 Skin and subcutaneous tissue  | 7 (5.3%)   | 786 (4.4%)   |
| 1300 Musculoskeletal system and connective tissue                                    | 12 (9.0%)  | 2703 (15.2%) |
| 1400 Genitourinary system  | 11 (8.3%)  | 1776 (10.0%) |
| 1500 Pregnancy, childbirth and the puerperium  | -          | 198 (1.1%)   |
| 1600 Conditions originating in the perinatal period                                  | -          | 25 (0.14%)   |
| 1700 Congenital/chromosomal abnormalities  | 1 (0.75%)  | 31 (0.17%)   |
| 1800 Symptoms, signs, abnormal clinical/lab findings                                 | 7 (5.3%)   | 816 (4.6%)   |
| 1900 Injury, poisoning   | 7 (5.3%)   | 512 (2.9%)   |
| 2000 External causes of morbidity and mortality (e.g. transport accidents, assaults) | -          | 379 (2.1%)   |
| 2100 Factors influencing health status and contact with health services              | 11 (8.3%)  | 619 (3.5%)   |
| No answer given  | -          | -            |

#### 3. Which conditions/comorbidities does this patient have?

|                       |            |              |
|-----------------------|------------|--------------|
| Cardiac insufficiency | 21 (15.8%) | 3518 (22.5%) |
|-----------------------|------------|--------------|

|                               |            |              |
|-------------------------------|------------|--------------|
| Myocardial infarction         | 17 (12.9%) | 823 (5.4%)   |
| Chronic lung disease          | 16 (12.2%) | 2299 (14.8%) |
| Cerebral vascular disease     | 15 (11.5%) | 1523 (9.9%)  |
| Peripheral vascular disease   | 15 (11.5%) | 1931 (12.6%) |
| Chronic liver disease         | 7 (5.3%)   | 992 (6.5%)   |
| Chronic kidney disease        | 8 (6.2%)   | 1734 (11.3%) |
| Diabetes                      | 29 (22.0%) | 3888 (24.9%) |
| Cancer                        | 44 (33.3%) | 3763 (24.2%) |
| Infection                     | 30 (22.9%) | 2245 (14.5%) |
| Dementia                      | 2 (1.5%)   | 798 (5.2%)   |
| Major depressive disorder     | 4 (3.1%)   | 853 (5.6%)   |
| Other chronic mental disorder | 6 (4.7%)   | 815 (5.4%)   |
| Other chronic disease         | 49 (37.4%) | 4031 (25.9%) |
| None                          | 17 (12.8%) | 3008 (16.9%) |

#### 4a. Previous operation during this hospital stay

|               |            |               |
|---------------|------------|---------------|
| Yes, planned  | 29 (21.8%) | 3584 (20.1%)  |
| Yes, acute    | 19 (14.3%) | 1077 (6.0%)   |
| No            | 82 (61.7%) | 12545 (70.4%) |
| I do not know | -          | 230 (1.3%)    |
| Missing       | 3 (2.3%)   | 391 (2.2%)    |

|                      |          |          |
|----------------------|----------|----------|
| Days since operation | 4 [1-14] | 3 [1-11] |
|----------------------|----------|----------|

#### 4b. Planned operation during this hospital stay

|                        |             |               |
|------------------------|-------------|---------------|
| Yes, today or tomorrow | 3 (2.3%)    | 1266 (7.1%)   |
| Yes, later             | 5 (3.8%)    | 953 (5.3%)    |
| No                     | 120 (90.2%) | 13798 (77.4%) |
| I do not know          | 1 (0.75%)   | 833 (4.7%)    |
| Missing                | 4 (3.0%)    | 977 (5.5%)    |

|   |            |              |
|---|------------|--------------|
| <b>5. Previous ICU admission during this hospital stay? (Yes)</b> | 22 (16.5%) | 1781 (10.0%) |
|---|------------|--------------|

|   |            |             |
|---|------------|-------------|
| <b>6. Is this patient terminally ill?</b> | 47 (35.3%) | 1122 (6.3%) |
|---|------------|-------------|

#### 7. Fluid status

|               |            |               |
|---------------|------------|---------------|
| Normal        | 76 (57.1%) | 13668 (76.7%) |
| Overloaded    | 9 (6.8%)   | 1008 (5.7%)   |
| Dehydrated    | 13 (9.8%)  | 878 (4.9%)    |
| I do not know | 35 (26.3%) | 2273 (12.8%)  |
| Missing       | -          | -             |

#### 8. Number of different medications planned

|      |          |         |
|------|----------|---------|
| Oral | 6 [3-10] | 5 [2-8] |
|------|----------|---------|

|       |         |         |
|-------|---------|---------|
| Other | 2 [1-4] | 2 [1-4] |
|-------|---------|---------|

### 9. Was this patient identified as malnourished or at risk of malnutrition?

|               |            |               |
|---------------|------------|---------------|
| Malnourished  | 12 (9.0%)  | 2050 (11.5%)  |
| At risk       | 25 (18.8%) | 3162 (17.7%)  |
| No            | 81 (60.9%) | 11117 (62.4%) |
| I do not know | 15 (11.3%) | 1498 (8.4%)   |
| Missing       | -          | -             |

### 10. IV Fluids

|   |            |              |
|---|------------|--------------|
| Electrolyte solution (NaCl, Ringers lactate, etc) | 16 (12.0%) | 6470 (36.3%) |
| 5% Glucose solution                               | 9 (6.8%)   | 1853 (10.4%) |

### 11. Number of ONS drinks planned

|         |         |
|---------|---------|
| 0 [0-1] | 0 [0-0] |
|---------|---------|

### 12. Nutrition intake

|   |            |               |
|---|------------|---------------|
| Regular hospital food                       | 74 (55.6%) | 10454 (58.6%) |
| Fortified/enriched hospital food            | 31 (23.3%) | 1962 (11.0%)  |
| Protein/energy supplement (e.g. ONS drinks) | 18 (13.5%) | 2469 (13.8%)  |
| Enteral nutrition                           | 13 (9.8%)  | 882 (4.9%)    |
| Parenteral nutrition                        | 13 (9.8%)  | 929 (5.2%)    |
| Special diet                                | 10 (7.5%)  | 5732 (32.2%)  |
| None  | 4 (3.0%)   | 895 (5.0%)    |

### 13a. All lines and Tubes

|   |            |              |
|---|------------|--------------|
| Central Venous                              | 18 (13.5%) | 1535 (8.6%)  |
| Peripheral venous access                    | 92 (69.2%) | 8238 (46.2%) |
| Nasogastric                                 | 10 (7.5%)  | 462 (2.6%)   |
| Nasojejunal                                 | 2 (1.5%)   | 79 (0.44%)   |
| Nasoduodenal                                | -          | 67 (0.38%)   |
| Enterostoma                                 | -          | 82 (0.46%)   |
| Percutaneous endoscopy/surgical gastrostomy | 3 (2.3%)   | 137 (0.77%)  |
| Percutaneous endoscopy/surgical jejunostomy | 4 (3.0%)   | 63 (0.35%)   |
| None  | 25 (18.8%) | 8032 (45.1%) |

### 13b. Were there complications with nutrition related lines and tubes since admission?

|                 |             |               |
|-----------------|-------------|---------------|
| Yes, previously | 4 (3.0%)    | 247 (1.4%)    |
| Yes, ongoing    | 3 (2.3%)    | 173 (0.97%)   |
| No              | 108 (81.2%) | 14548 (81.6%) |
| I do not know   | 14 (10.5%)  | 1646 (9.2%)   |
| Missing         | 4 (3.0%)    | 1213 (6.8%)   |

### 14. Please indicate if any of the following was done for this patient since admission

|                                     |            |              |
|-------------------------------------|------------|--------------|
| Energy requirements were determined | 28 (21.1%) | 6273 (35.2%) |
|-------------------------------------|------------|--------------|

|  |            |              |
|--|------------|--------------|
| Protein requirements were determined                     | 21 (15.8%) | 5516 (30.9%) |
| Food/Nutrition intake was recorded in the patient record | 42 (31.6%) | 7653 (42.9%) |
| Nutrition treatment plan was developed                   | 30 (22.6%) | 6036 (33.9%) |
| Nutrition expert was consulted                           | 22 (16.5%) | 6237 (35.0%) |
| Malnutrition status is recorded in the patient record    | 64 (48.1%) | 5297 (29.7%) |
| None   | -          | -            |

### 15a. Energy goal

|                |            |              |
|----------------|------------|--------------|
| < 500 kcal     | 15 (11.3%) | 749 (4.2%)   |
| 500-999 kcal   | -          | 194 (1.1%)   |
| 1000-1499 kcal | 18 (13.5%) | 1695 (9.5%)  |
| 1500-1999 kcal | 17 (12.8%) | 5578 (31.3%) |
| >=2000 kcal    | 9 (6.8%)   | 1992 (11.2%) |
| Not determined | 58 (43.6%) | 6066 (34.0%) |
| I do not know  | 16 (12.0%) | 1515 (8.5%)  |
| Missing        | -          | 38 (0.21%)   |

### 15b. Energy intake

|                |            |              |
|----------------|------------|--------------|
| < 500 kcal     | 17 (12.8%) | 1264 (7.1%)  |
| 500-999 kcal   | 3 (2.3%)   | 900 (5.0%)   |
| 1000-1499 kcal | 24 (18.0%) | 2387 (13.4%) |
| 1500-1999 kcal | 12 (9.0%)  | 3954 (22.2%) |
| >=2000 kcal    | 9 (6.8%)   | 1047 (5.9%)  |
| Not determined | 42 (31.6%) | 6021 (33.8%) |
| I do not know  | 26 (19.5%) | 2199 (12.3%) |
| Missing        | -          | 55 (0.31%)   |

### 16. Since admission, this patient's health status has...

|                                     |            |              |
|-------------------------------------|------------|--------------|
| Improved                            | 61 (45.9%) | 8831 (49.5%) |
| Deteriorated                        | 11 (8.3%)  | 1039 (5.8%)  |
| Remained the same                   | 33 (24.8%) | 4935 (27.7%) |
| This patient has just been admitted | 8 (6.0%)   | 1248 (7.0%)  |
| I do not know                       | 20 (15.0%) | 1774 (10.0%) |
| Missing                             | -          | -            |

|                                |           |           |
|--------------------------------|-----------|-----------|
| Length of hospital stay (days) | 10 [6-21] | 12 [6-24] |
|--------------------------------|-----------|-----------|

### Outcome Code

|                                    |            |               |
|------------------------------------|------------|---------------|
| 1= Still in the hospital           | 3 (2.3%)   | 1702 (9.5%)   |
| 2= Transferred to another hospital | 8 (6.0%)   | 419 (2.4%)    |
| 3= Transferred to long term care   | 1 (0.75%)  | 780 (4.4%)    |
| 4= Rehabilitation                  | 12 (9.0%)  | 785 (4.4%)    |
| 5= Discharged home                 | 99 (74.4%) | 13163 (73.8%) |
| 6= Death                           | 2 (1.5%)   | 535 (3.0%)    |

|                                      |            |               |
|--------------------------------------|------------|---------------|
| 7= Others                            | 3 (2.3%)   | 310 (1.7%)    |
| Missing                              | 5 (3.8%)   | 133 (0.75%)   |
| Readmitted since ND                  |            |               |
| 1= No                                | 91 (74.6%) | 11846 (75.5%) |
| 2= Yes, same hospital planned        | 4 (3.3%)   | 1043 (6.7%)   |
| 3= Yes, same hospital unplanned      | 13 (10.7%) | 889 (5.7%)    |
| 4= Yes, different hospital planned   | 3 (2.5%)   | 68 (0.43%)    |
| 5= Yes, different hospital unplanned | 3 (2.5%)   | 68 (0.43%)    |
| 6= Unknown                           | 11 (9.0%)  | 646 (4.1%)    |
| Missing                              | -          | 1059 (6.8%)   |

***IV. Patient's perspective: Medical history, nutrition status & intake today ("Sheet 3a/3b")***

|   | <i>YOUR RESULTS</i> | <i>REFERENCE RESULTS</i> |
|---|---------------------|--------------------------|
| <b>1. What are your typical dietary habits?</b>   |                     |                          |
| No special dietary habits   | 89 (69.0%)          | 12235 (71.0%)            |
| I am vegetarian   | 2 (1.6%)            | 370 (2.1%)               |
| I adhere to a vegan diet  | -                   | 132 (0.77%)              |
| I eat gluten-free diet  | 3 (2.3%)            | 156 (0.91%)              |
| I avoid added sugars  | 21 (16.3%)          | 2604 (15.1%)             |
| I avoid carbohydrates   | 2 (1.6%)            | 1038 (6.0%)              |
| I eat a low fat-diet  | 4 (3.1%)            | 1930 (11.2%)             |
| I am lactose intolerant   | 5 (3.9%)            | 572 (3.3%)               |
| Other special diet due to intolerances/allergies  | 1 (0.78%)           | 323 (1.9%)               |
| Other   | 26 (20.2%)          | 1219 (7.1%)              |
| No answer given   | 1 (0.78%)           | 337 (2.0%)               |
| <b>2. Where did you live before your current hospital admission?</b>                        |                     |                          |
| At home   | 123 (95.3%)         | 15276 (88.7%)            |
| In a nursing home or other live-in facility   | 1 (0.78%)           | 609 (3.5%)               |
| I was transferred from another hospital   | 2 (1.6%)            | 883 (5.1%)               |
| Other   | 1 (0.78%)           | 268 (1.6%)               |
| Missing   | 2 (1.6%)            | 185 (1.1%)               |
| <b>3. In general, are you able to walk?</b>   |                     |                          |
| Yes   | 94 (72.9%)          | 11104 (64.5%)            |
| Yes, with someone's help  | 5 (3.9%)            | 1762 (10.2%)             |
| Yes, independently using a cane, walker, or crutches  | 18 (14.0%)          | 2412 (14.0%)             |
| No, I have a wheelchair   | 10 (7.8%)           | 712 (4.1%)               |
| No, I am bedridden  | 1 (0.78%)           | 988 (5.7%)               |
| Missing   | 1 (0.78%)           | 243 (1.4%)               |
| <b>4. In general, how would you say your health is?</b>                                     |                     |                          |
| Very good   | 14 (10.9%)          | 1252 (7.3%)              |
| Good  | 32 (24.8%)          | 6191 (36.0%)             |
| Fair  | 43 (33.3%)          | 6489 (37.7%)             |
| Poor  | 27 (20.9%)          | 2490 (14.5%)             |
| Very poor   | 5 (3.9%)            | 558 (3.2%)               |
| Missing   | 8 (6.2%)            | 241 (1.4%)               |
| <b>5. Over the last 12 months prior to your current hospital admission approximately...</b> |                     |                          |
| ... how many times have you seen a doctor?  | 3 [1-6]             | 5 [2-10]                 |
| ... how many times have you been admitted to the hospital (Emergency room, any ward)?       | 1 [0-2]             | 1 [0-2]                  |
| ... how many nights in total have you spent in hospital?                                    | 4 [0-10]            | 5 [0-15]                 |

| <b>6. How many different medications do you take routinely each day (prior to hospitalisation)?</b> |            |              |
|---|------------|--------------|
| 1-2   | 26 (20.2%) | 3323 (19.3%) |
| 3-5   | 33 (25.6%) | 4698 (27.3%) |
| More than 5   | 52 (40.3%) | 5507 (32.0%) |
| None  | 16 (12.4%) | 2633 (15.3%) |
| I do not know   | 2 (1.6%)   | 778 (4.5%)   |
| Missing   | -          | 282 (1.6%)   |

| <b>7. Do you have health insurance?</b> |             |              |
|---|-------------|--------------|
| Yes, private insurance only             | 1 (0.78%)   | 2738 (15.9%) |
| Yes, public insurance only              | 101 (78.3%) | 8466 (49.2%) |
| Yes, both                               | 15 (11.6%)  | 2117 (12.3%) |
| None                                    | 5 (3.9%)    | 2268 (13.2%) |
| I prefer not to answer                  | 3 (2.3%)    | 1018 (5.9%)  |
| Missing                                 | 4 (3.1%)    | 614 (3.6%)   |

| <b>8. What was your weight 5 years ago?</b> |            |              |
|---|------------|--------------|
|   | 80 [70-90] | 72 [60-85]   |
| I do not know                               | 34 (26.4%) | 4280 (24.9%) |

| <b>9a. Have you lost weight within the last 3 months?</b> |            |              |
|---|------------|--------------|
| Yes, intentionally  | 8 (6.2%)   | 1639 (9.5%)  |
| Yes, unintentionally                                      | 46 (35.7%) | 6488 (37.7%) |
| No, my weight stayed the same                             | 35 (27.1%) | 5108 (29.7%) |
| No, I gained weight                                       | 17 (13.2%) | 1894 (11.0%) |
| I do not know   | 18 (14.0%) | 1680 (9.8%)  |
| Missing   | 5 (3.9%)   | 412 (2.4%)   |

| <b>9b. If yes, how many kg did you lose?</b> |          |              |
|--|----------|--------------|
|  | 7 [4-10] | 6 [4-10]     |
| I do not know                                | 4 (7.4%) | 1267 (15.6%) |

| <b>10. Did you know about your hospitalisation two days before admission? (Yes)</b> |            |              |
|---|------------|--------------|
|   | 28 (24.8%) | 6721 (41.1%) |

| <b>11. Please indicate if you ...</b>          |            |              |
|--|------------|--------------|
| ... were weighed at admission                  | 67 (52.8%) | 9728 (57.2%) |
| ... were informed about your nutrition status  | 15 (12.2%) | 5774 (34.3%) |
| ... were informed about nutrition care options | 18 (14.6%) | 5459 (32.5%) |
| ... received special nutrition care            | 24 (19.4%) | 5054 (30.1%) |

| <b>12. How well have you eaten in the week before you were admitted to the hospital?</b> |            |               |
|--|------------|---------------|
| More than normal   | -          | 762 (4.5%)    |
| Normal   | 91 (71.1%) | 10449 (61.1%) |
| About 3/4 of normal  | 12 (9.4%)  | 1762 (10.3%)  |
| About half of normal   | 15 (11.7%) | 2122 (12.4%)  |



|                                   |          |             |
|-----------------------------------|----------|-------------|
| About a quarter to nearly nothing | 5 (3.9%) | 1571 (9.2%) |
| I do not know                     | 3 (2.3%) | 153 (0.89%) |
| Missing                           | 2 (1.6%) | 286 (1.7%)  |

### 13. In general, how satisfied are you with the food at the hospital?

|                    |            |              |
|--------------------|------------|--------------|
| Very satisfied     | 25 (19.5%) | 4212 (24.6%) |
| Somewhat satisfied | 53 (41.4%) | 5626 (32.9%) |
| Neutral            | 19 (14.8%) | 3361 (19.6%) |
| Dissatisfied       | 11 (8.6%)  | 1441 (8.4%)  |
| Very dissatisfied  | 2 (1.6%)   | 491 (2.9%)   |
| I do not know      | 17 (13.3%) | 1415 (8.3%)  |
| Missing            | 1 (0.78%)  | 559 (3.3%)   |

### 14. Did you get any help with eating TODAY?

|                             |            |               |
|-----------------------------|------------|---------------|
| Yes, from family or friends | 1 (0.78%)  | 1651 (9.7%)   |
| Yes, from hospital staff    | 9 (7.0%)   | 1185 (6.9%)   |
| No                          | 97 (75.8%) | 13278 (77.6%) |
| I do not know               | 6 (4.7%)   | 218 (1.3%)    |
| Missing                     | 15 (11.7%) | 773 (4.5%)    |

|   |            |               |
|---|------------|---------------|
| <b>15. Were you able to eat without interruption TODAY? (Yes)</b> | 92 (79.3%) | 11891 (74.2%) |
|---|------------|---------------|

### 16a. Please indicate how much hospital food you ate for lunch or dinner TODAY:

|           |            |              |
|-----------|------------|--------------|
| About all | 55 (43.0%) | 7871 (46.0%) |
| 1/2       | 25 (19.5%) | 4261 (24.9%) |
| 1/4       | 18 (14.1%) | 2226 (13.0%) |
| Nothing   | 22 (17.2%) | 1992 (11.6%) |
| Missing   | 8 (6.3%)   | 755 (4.4%)   |

### 16b. The portion size of the meal I ordered TODAY was...

|               |            |               |
|---------------|------------|---------------|
| Standard      | 61 (47.7%) | 11000 (64.3%) |
| Smaller       | 27 (21.1%) | 1600 (9.4%)   |
| Larger        | 6 (4.7%)   | 763 (4.5%)    |
| I do not know | 14 (10.9%) | 1701 (9.9%)   |
| Missing       | 20 (15.6%) | 2041 (11.9%)  |

### 17. If you did not eat everything of your meal, please tell us why:

|  |            |              |
|--|------------|--------------|
| I did not like the type of food offered                | 3 (4.6%)   | 1293 (15.2%) |
| I did not like the smell/taste of the food             | 3 (4.6%)   | 996 (11.7%)  |
| The food did not fit my cultural/religious preferences | -          | 90 (1.1%)    |
| The food was too hot                                   | -          | 38 (0.45%)   |
| The food was too cold                                  | 3 (4.6%)   | 207 (2.4%)   |
| Due to food allergy/intolerance                        | -          | 53 (0.63%)   |
| I was not hungry at that time                          | 14 (21.5%) | 1520 (17.9%) |

|  |            |              |
|--|------------|--------------|
| I do not have my usual appetite                    | 17 (26.2%) | 2475 (29.2%) |
| I have problems chewing/swallowing                 | 3 (4.6%)   | 478 (5.6%)   |
| I normally eat less than what was served           | 5 (7.7%)   | 969 (11.4%)  |
| I had nausea/vomiting                              | 8 (12.3%)  | 637 (7.5%)   |
| I was too tired                                    | 3 (4.6%)   | 506 (6.0%)   |
| I cannot eat without help                          | -          | 141 (1.7%)   |
| I was not allowed to eat                           | 12 (18.5%) | 869 (10.2%)  |
| I had an exam, surgery, or test and missed my meal | 2 (3.1%)   | 469 (5.5%)   |
| I did not get requested food                       | 1 (1.5%)   | 93 (1.1%)    |
| No answer given                                    | 16 (24.6%) | 1161 (13.7%) |

### 18. Enter the number of glasses/cups of the drinks you consumed in the last 24 hours

|                 |         |         |
|-----------------|---------|---------|
| Water           | 4 [2-5] | 3 [2-5] |
| Tea             | 2 [2-2] | 1 [1-3] |
| Coffee          | 2 [1-3] | 1 [1-2] |
| Milk            | 1 [1-2] | 1 [0-1] |
| Fruit juice     | 2 [1-3] | 1 [0-2] |
| Soft drinks     | 1 [1-1] | 0 [0-1] |
| Nutrition drink | 1 [1-2] | 0 [0-1] |
| Other           | 2 [1-2] | 0 [0-1] |

|  |            |              |
|--|------------|--------------|
| <b>19a. Did you eat any food apart from hospital food TODAY?</b> | 16 (13.9%) | 4518 (28.8%) |
|--|------------|--------------|

### 19b. If yes, what did you eat?

|                           |           |              |
|---------------------------|-----------|--------------|
| Sweet snacks              | 1 (6.3%)  | 1302 (28.8%) |
| Salty snacks              | 1 (6.3%)  | 512 (11.3%)  |
| Homemade food             | 1 (6.3%)  | 703 (15.6%)  |
| Fruits                    | 8 (50.0%) | 1730 (38.3%) |
| Dairy products            | 5 (31.3%) | 471 (10.4%)  |
| Food delivered/restaurant | 2 (12.5%) | 191 (4.2%)   |
| Sandwich                  | 2 (12.5%) | 282 (6.2%)   |
| Other                     | -         | 724 (16.0%)  |

### 20. How has your food intake changed since your hospital admission?

|                 |            |              |
|-----------------|------------|--------------|
| Increased       | 15 (11.7%) | 2508 (14.7%) |
| Decreased       | 36 (28.1%) | 5344 (31.2%) |
| Stayed the same | 57 (44.5%) | 7154 (41.8%) |
| I do not know   | 10 (7.8%)  | 1188 (6.9%)  |
| Missing         | 10 (7.8%)  | 911 (5.3%)   |

### 21. TODAY I feel...

|                            |            |              |
|----------------------------|------------|--------------|
| Stronger than at admission | 47 (36.7%) | 7275 (42.5%) |
| Weaker than at admission   | 27 (21.1%) | 3158 (18.5%) |
| Same as at admission       | 36 (28.1%) | 4825 (28.2%) |

|                      |            |            |
|----------------------|------------|------------|
| I was admitted today | -          | 465 (2.7%) |
| I do not know        | 16 (12.5%) | 926 (5.4%) |
| Missing              | 2 (1.6%)   | 456 (2.7%) |

**22. Can you walk without assistance TODAY?**

|                          |            |               |
|--------------------------|------------|---------------|
| Yes                      | 73 (57.0%) | 10229 (59.8%) |
| No, only with assistance | 42 (32.8%) | 4164 (24.3%)  |
| No, I stay in bed        | 8 (6.3%)   | 1821 (10.6%)  |
| Missing                  | 5 (3.9%)   | 891 (5.2%)    |

|   |            |               |
|---|------------|---------------|
| <b>23. Did anyone help you complete this questionnaire?</b> | 54 (45.8%) | 10837 (65.0%) |
|---|------------|---------------|