



nutritionDay  
IN EUROPE

National report

## nutritionDay 2008 in NORWAY

Dear participant,

August 2008

Thank you for your participation in nutritionDay 2008 and for your effort. We can finally present you your country report of the following sample size:

Number of units on nutritionDay:	22
Number of patients on nutritionDay:	494
Number of patients completing Sheet 3a:	279
Number of patients completing Sheet 3b:	270

The report consists of 3 parts:

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

Part II describes the patients according to questionnaire "sheet 2".

Part III is the summary of information on nutrition given by the patients according to sheet 3a and 3b.

You will find some explanations how to read and interpret the data on the next page.

**Next year's nutritionDay will take place on 29<sup>th</sup> January 2009. 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

Dr. Karin Schindler

Mag. Karin Steininger

## How to read the results?

Your report is configured as table with 3 columns. The first column contains the name of the result, possibly with a short description. In the second column you will find your country results and in the third column you can see the reference values from the total cohort.

You will find "(n)" in brackets indicating that results are referring to a certain number of patients. Generally the patients' results are based on the number of patients participating at your country.

**For example:** number of patients on nutritionDay 2008 = 20

Fluid status (n):  
dehydrated 4

...

**Explanation:** 4 of 20 patients participating are reported to be dehydrated on nutritionDay 2008.

If results are referring to an "n" different to the number of patients participating, a short explanation will be given.

**For example:** number of patients on nutritionDay 2008 = 20

Weight loss within 3 months (n)

Yes 10

Category of weight decrease (n):

0-4 kg	4
5-8 kg	2
> 8 kg	1
not sure	2
missing	1

**Explanation:** 10 of 20 patients reported a weight loss within the last 3 months. The category of weight decrease is only referring to these 10 patients having lost weight.

Be careful! - There are some multiple choice questions in the questionnaires. In this case the total number of answers exceeds the number of patients. These results are marked with an asterisk.

**For example:** affected organs (n)\*

Mean and standard deviation are displayed as follows:

**For example:** Weight (kg) 75 ± 15

Median and [min - max] are displayed that way:

**For example:** LOS (days) 8 [5-15]

## I. DESCRIPTION OF THE UNIT ("Sheet 1"):

Total cohort: 830 units, 16831 patients

	<b>YOUR COUNTRY RESULTS</b>	<b>REFERENCE ND-08</b>
<b>Number of beds:</b>		
Actual	24 ± 7	31 ± 20
Maximum	23 ± 7	34 ± 22
<b>Number of patients on the nutritionDay (n):</b>		
Total	494	16831
Did not give consent	131 (26.5%)	2182 (13.0%)
Needed help	83 (16.8%)	8079 (48.0%)
<b>Specialities (n):</b>		
Internal medicine/general	-	107 (12.9%)
Internal medicine/gastroenterology and hepatology	3 (13.6%)	73 (8.80%)
Internal medicine/oncology (incl. Radiotherapy)	5 (22.7%)	58 (6.99%)
Internal medicine/cardiology	3 (13.6%)	29 (3.49%)
Internal medicine/infectious diseases	-	9 (1.08%)
Internal medicine/geriatrics	1 (4.55%)	60 (7.23%)
Internal medicine/nephrology	-	14 (1.69%)
Pediatrics	-	2 (0.24%)
Neurology	-	38 (4.58%)
Psychiatry	-	12 (1.45%)
Ear Nose Throat (ENT)	1 (4.55%)	27 (3.25%)
General surgery	3 (13.6%)	135 (16.3%)
Cardiothoracic surgery	1 (4.55%)	15 (1.81%)
Orthopedic surgery	-	31 (3.73%)
Trauma	-	18 (2.17%)
Neurosurgery	-	9 (1.08%)
Gynecology	-	31 (3.73%)
Long-term-care	-	5 (0.60%)
Others	5 (22.7%)	157 (18.9%)
<b>Staff/Staff per patient:</b>		
Physicians	1.95 ± 2.59	3.26 ± 4.75
Physicians per patient	0.09 ± 0.11	0.13 ± 0.20
Consultants	2.50 ± 1.50	1.61 ± 2.51
Consultants per patient	0.12 ± 0.07	0.05 ± 0.08
Registrars	2.23 ± 1.38	1.82 ± 3.31
Registrars per patient	0.11 ± 0.07	0.06 ± 0.12
Nurses	9.68 ± 7.98	5.46 ± 8.25
Nurses per patient	0.41 ± 0.22	0.20 ± 0.33
Nursing aides	2.41 ± 1.37	1.57 ± 1.89
Nursing aides per patient	0.10 ± 0.05	0.06 ± 0.09

Student nurses	1.64 ± 1.87	1.07 ± 1.78
Student nurses per patient	0.08 ± 0.09	0.04 ± 0.05
Dieticians and dietetic assistants	0.27 ± 0.55	0.70 ± 1.17
Dieticians and dietetic assistants per pat.	0.01 ± 0.02	0.02 ± 0.05

**Nutrition Care:**

Nutrition Team	9 units (41%) Yes	630 units (76%) Yes
Written procedures		
- individual	8 units (36%) Yes	568 units (68%) Yes
- local	5 units (23%) Yes	301 units (36%) Yes
- national	1 units (05%) Yes	286 units (34%) Yes

**Patients' weight assessed:**

On admission	14 units (64%) Yes	639 units (77%) Yes
When requested	9 units (41%) Yes	458 units (55%) Yes
Once a week	10 units (45%) Yes	334 units (40%) Yes
Occasionally	3 units (14%) Yes	95 units (11%) Yes
Never	- units (00%) Yes	15 units (02%) Yes

## II. YOUR PATIENTS ("Sheet 2"):

Total cohort: 830 units, 16831 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-08
<b>Number of patients (n):</b>		
Total	494	16831
Patients who completed sheet 3a	279 (56.5%)	13919 (82.7%)
Patients who completed sheet 3b	270 (54.7%)	13388 (79.5%)
<b>Demographic data:</b>		
Age (years)	68 [20-99]	67 [2-105]
Female gender	224 (45.3%)	8102 (48.1%)
Weight (kg)	73.9 ± 19.4	70.5 ± 18.3
Height (cm)	170.2 ± 9.8	166.2 ± 10.4
BMI (kg/m <sup>2</sup> )	25.1 ± 5.6	25.4 ± 5.7
<b>Fluid status (n):</b>		
Normal	209 (42.3%)	12284 (73.0%)
Dehydrated	42 (8.50%)	1189 (7.06%)
Fluid overload	27 (5.47%)	1546 (9.19%)
Missing	216 (43.7%)	1812 (10.8%)
<b>ICU-stay (n):</b>		
Any ICU-stay	46 (9.31%)	2265 (13.5%)
<b>Surgery (n):</b>		
Preoperative patients	27 (5.47%)	1452 (8.63%)
Postoperative patients	95 (19.2%)	3903 (23.2%)
<b>Length of stay (days):</b>		
Hospital	10 [2-217]	16 [1-2969]
Unit	10 [2-137]	15 [1-2969]
<b>Outcome after 30 days (n):</b>		
Still in hospital	34 (6.88%)	1596 (9.48%)
Transferred to another hospital	15 (3.04%)	365 (2.17%)
Transferred to long-term care	89 (18.0%)	432 (2.57%)
Rehabilitation	5 (1.01%)	315 (1.87%)
Discharge home	223 (45.1%)	6907 (41.0%)
Death	12 (2.43%)	372 (2.21%)
Others	4 (0.81%)	229 (1.36%)
Missing	112 (22.7%)	6615 (39.3%)
<b>Readmitted (n):</b>	31 (6.28%)	462 (2.74%)

Results in percent referring to the total number of patients

## II. YOUR PATIENTS ("Sheet 2"):

Total cohort: 830 units, 16831 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-08
<b>Nutrition therapy (n)*:</b>		
Enteral nutrition	102 (20.6%)	1916 (11.4%)
Parenteral nutrition	18 (3.64%)	831 (4.94%)
Enteral + parenteral nutrition	5 (1.01%)	281 (1.67%)
Special diet	14 (2.83%)	2202 (13.1%)
Protein/energy supplement	18 (3.64%)	977 (5.80%)
Hospital food	224 (45.3%)	10249 (60.9%)
Others	9 (1.82%)	1019 (6.05%)
Missing	125 (25.3%)	1251 (7.43%)
<b>Lines &amp; tubes (n)*:</b>		
None	431 (87.2%)	12174 (72.3%)
One line	58 (11.7%)	3810 (22.6%)
More than one	5 (1.01%)	847 (5.03%)
Centralvenous	27 (5.47%)	1180 (7.01%)
Nasogastric tube	7 (1.42%)	356 (2.12%)
Any other (PEG, PEJ, ...)	33 (6.68%)	3436 (20.4%)
<b>Affected organs (n)*:</b>		
Brain, nerves	12 (2.43%)	2245 (13.3%)
Eye, ear	2 (0.40%)	341 (2.03%)
Nose, throat	21 (4.25%)	554 (3.29%)
Heart, circulation	48 (9.72%)	3189 (18.9%)
Lung	19 (3.85%)	1788 (10.6%)
Liver	16 (3.24%)	1098 (6.52%)
Gastrointestinal tract	156 (31.6%)	3614 (21.5%)
Kidney, urinary tract, femal genital tract	27 (5.47%)	1519 (9.03%)
Endocrine system	10 (2.02%)	1142 (6.79%)
Skeleton, bone, muscle	15 (3.04%)	2746 (16.3%)
Blood, bone marrow	4 (0.81%)	526 (3.13%)
Skin	2 (0.40%)	503 (2.99%)
Ischaemia	-	230 (1.37%)
Cancer	147 (29.8%)	2833 (16.8%)
Infection	12 (2.43%)	753 (4.47%)
Pregnancy	-	103 (0.61%)
Others	6 (1.21%)	1220 (7.25%)
No affected organ	134 (27.1%)	1193 (7.09%)
<b>Comorbidities (n)*:</b>		
Diabetes I/II	37 (7.49%)	2658 (15.8%)
Stroke	5 (1.01%)	715 (4.25%)
COPD	19 (3.85%)	737 (4.38%)
Myocardial infarction	23 (4.66%)	508 (3.02%)
Cardiac insufficiency	16 (3.24%)	1612 (9.58%)
Others	109 (22.1%)	5618 (33.4%)
No comorbidity	324 (65.6%)	7661 (45.5%)

Results in percent referring to the total number of patients

### III. YOUR PATIENTS (“Sheet 3a”):

Total cohort: 830 units, 16831 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-08
<b>Weight loss within the last 3 months (n):</b>		
Total of patients answering	273 (97.8%)	13252 (95.2%)
Yes	125 (44.8%)	5662 (40.7%)
No	119 (42.7%)	5733 (41.2%)
No, I've gained weight	20 (7.17%)	981 (7.05%)
I don't know	9 (3.23%)	876 (6.29%)
<b>Category of weight decrease (n):</b>		
Patients reporting weight loss	125 (44.8%)	5662 (40.7%)
0-4 kg	51 (18.3%)	2820 (20.3%)
5-8 kg	33 (11.8%)	1078 (7.74%)
> 8 kg	33 (11.8%)	1357 (9.75%)
Not sure	7 (2.51%)	328 (2.36%)
Missing	1 (0.36%)	79 (0.57%)
<b>“How well have you eaten during the last week?”(n):</b>		
Normal	102 (36.6%)	7150 (51.4%)
A bit less than normal	76 (27.2%)	3042 (21.9%)
Less than half of normal	46 (16.5%)	1689 (12.1%)
Less than a quarter to nearly nothing	50 (17.9%)	1346 (9.67%)
Missing	5 (1.79%)	692 (4.97%)
<b>“I ate less because”(n)*:</b>		
Total of patients answering	169 (60.6%)	6033 (43.3%)
Loss of appetite	93 (33.3%)	3380 (24.3%)
Problems with swallowing/chewing	23 (8.24%)	686 (4.93%)
Nausea	43 (15.4%)	956 (6.87%)
Other reasons	67 (24.0%)	2166 (15.6%)
<b>“Can you walk without assistance?”(n):</b>		
Yes	206 (73.8%)	9308 (66.9%)
No, only with assistance	53 (19.0%)	2421 (17.4%)
No, I stay in bed	15 (5.38%)	1478 (10.6%)
Missing	5 (1.79%)	712 (5.12%)
<b>“Did you need help to complete the questionnaire?”(according to patient) (n):</b>		
Yes	147 (52.7%)	8027 (57.7%)

Results in percent referring to the total number of patients answering

### III. YOUR PATIENTS (“Sheet 3b”):

Total cohort: 830 units, 16831 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-08
<b>Fluid and supplement intake (n):</b>		
Patients with fluid intake	229 (84.8%)	11493 (85.8%)
Drinks per patient & day (l)	0.83	1.02
Patients with supplements	46 (17.0%)	2658 (19.9%)
Supplements per patient & day (l)	0.08	0.11

Results referring to the total number of completed questionnaires

#### Hospital food intake:

<b>Your country results</b> (referring to the total number of completed questionnaires=270)					
n (%)	all	1/2	1/4	nothing	no answer
Breakfast	136 (50.4%)	40 (14.8%)	23 (8.52%)	56 (20.7%)	15 (5.56%)
Lunch	102 (37.8%)	46 (17.0%)	28 (10.4%)	54 (20.0%)	40 (14.8%)
Dinner	97 (35.9%)	38 (14.1%)	20 (7.41%)	53 (19.6%)	62 (23.0%)

<b>Reference results</b> (referring to the total number of completed questionnaires=13388)					
n (%)	all	1/2	1/4	nothing	no answer
Breakfast	7133 (53.3%)	2687 (20.1%)	1020 (7.62%)	2128 (15.9%)	420 (3.14%)
Lunch	6496 (48.5%)	3366 (25.1%)	1331 (9.94%)	1638 (12.2%)	557 (4.16%)
Dinner	6558 (49.0%)	2953 (22.1%)	1340 (10.0%)	1633 (12.2%)	904 (6.75%)

<b>Your country results</b> (referring to the total number of completed questionnaires=270)			
n (%)	Snack 1	Snack 2	Snack 3
Cakes, sweets, biscuits	12 (4.44%)	20 (7.41%)	14 (5.19%)
Fresh fruits	21 (7.78%)	8 (2.96%)	18 (6.67%)
Sandwiches	6 (2.22%)	13 (4.81%)	42 (15.6%)
Dairy products	15 (5.56%)	11 (4.07%)	17 (6.30%)
Others	7 (2.59%)	7 (2.59%)	15 (5.56%)
Nothing	58 (21.5%)	39 (14.4%)	24 (8.89%)
Missing	158 (58.5%)	180 (66.7%)	167 (61.9%)

<b>Reference results</b> (referring to the total number of completed questionnaires=13388)			
n (%)	Snack 1	Snack 2	Snack 3
Cakes, sweets, biscuits	1121 (8.37%)	2166 (16.2%)	1235 (9.22%)
Fresh fruits	2095 (15.6%)	2347 (17.5%)	1546 (11.5%)
Sandwiches	417 (3.11%)	545 (4.07%)	643 (4.80%)
Dairy products	949 (7.09%)	1055 (7.88%)	866 (6.47%)
Others	421 (3.14%)	660 (4.93%)	514 (3.84%)
Nothing	5835 (43.6%)	4469 (33.4%)	5689 (42.5%)
Missing	3336 (24.9%)	3384 (25.3%)	3850 (28.8%)