



nutritionDay  
IN EUROPE

*National report*

## nutritionDay 2009 in NORWAY

Dear participant,

July 2009

Thank you for your participation in nutritionDay 2009 and for your effort. We can finally present you your country report of the following sample size:

Number of units on nutritionDay:	24
Number of patients on nutritionDay:	449
Number of patients completing Sheet 3a:	292
Number of patients completing Sheet 3b:	279

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 in January 2010. 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. Johanna Tripamer

## 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 2009 = 20*

Fluid status (n):  
dehydrated 4

...

**Explanation:** 4 of 20 patients participating are reported to be dehydrated on nutritionDay 2009.

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 2009 = 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: 526 units, 11296 patients

	<b>YOUR COUNTRY RESULTS</b>	<b>REFERENCE ND-09</b>
<b>Number of beds:</b>		
Actual	21 ± 9	27 ± 16
Maximum	21 ± 8	30 ± 17
<b>Number of patients on the nutritionDay (n):</b>		
Total	449	11296
Did not give consent	112 (24.9%)	1580 (14.0%)
Needed help	140 (31.2%)	4779 (42.3%)
<b>Specialities (n):</b>		
Internal medicine/general	2 (8.33%)	65 (12.4%)
Internal medicine/gastroenterology and hepatology	2 (8.33%)	37 (7.03%)
Internal medicine/oncology (incl. Radiotherapy)	7 (29.2%)	49 (9.32%)
Internal medicine/cardiology	-	14 (2.66%)
Internal medicine/infectious diseases	1 (4.17%)	10 (1.90%)
Internal medicine/geriatrics	1 (4.17%)	73 (13.9%)
Internal medicine/nephrology	1 (4.17%)	15 (2.85%)
Pediatrics	-	2 (0.38%)
Neurology	-	16 (3.04%)
Psychiatry	-	7 (1.33%)
Ear Nose Throat (ENT)	-	15 (2.85%)
General surgery	4 (16.7%)	76 (14.4%)
Cardiothoracic surgery	-	8 (1.52%)
Orthopedic surgery	2 (8.33%)	19 (3.61%)
Trauma	-	12 (2.28%)
Neurosurgery	1 (4.17%)	7 (1.33%)
Gynecology	-	9 (1.71%)
Long-term-care	-	-
Others	3 (12.5%)	92 (17.5%)
<b>Staff/Staff per patient:</b>		
Physicians	6.94 ± 3.68	4.48 ± 5.05
Physicians per patient	0.28 ± 0.15	0.16 ± 0.14
Consultants	3.14 ± 1.61	1.87 ± 3.40
Consultants per patient	0.16 ± 0.11	0.07 ± 0.10
Registrars	2.95 ± 1.36	2.43 ± 3.58
Registrars per patient	0.15 ± 0.08	0.08 ± 0.10
Nurses	8.67 ± 6.06	6.06 ± 8.15
Nurses per patient	0.41 ± 0.22	0.22 ± 0.19
Nursing aides	1.88 ± 1.87	2.39 ± 2.30
Nursing aides per patient	0.08 ± 0.07	0.09 ± 0.09

Student nurses	1.78 ± 2.17	1.30 ± 1.46
Student nurses per patient	0.08 ± 0.09	0.05 ± 0.05
Dieticians and dietetic assistants	0.22 ± 0.41	0.78 ± 0.76
Dieticians and dietetic assistants per pat.	0.01 ± 0.02	0.03 ± 0.04

**Nutrition Care:**

Nutrition Team	1 units (04%) Yes	372 units (71%) Yes
Written procedures		
- individual	13 units (54%) Yes	330 units (63%) Yes
- local	11 units (46%) Yes	219 units (42%) Yes
- national	- units (00%) Yes	188 units (36%) Yes

**Patients' weight assessed:**

On admission	18 units (75%) Yes	366 units (70%) Yes
When requested	20 units (83%) Yes	304 units (58%) Yes
Once a week	9 units (38%) Yes	199 units (38%) Yes
Occasionally	4 units (17%) Yes	67 units (13%) Yes
Never	- units (00%) Yes	8 units (02%) Yes

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

Total cohort: 526 units, 11296 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-09
<b>Number of patients (n):</b>		
Total	449	11296
Patients who completed sheet 3a	292 (65.0%)	8934 (79.1%)
Patients who completed sheet 3b	279 (62.1%)	8589 (76.0%)
<b>Demographic data:</b>		
Age (years)	66 [17-100]	69 [4-109]
Female gender	195 (43.4%)	5544 (49.1%)
Weight (kg)	73.7 ± 18.4	71.4 ± 17.6
Height (cm)	171.9 ± 10.6	166.9 ± 10.2
BMI (kg/m <sup>2</sup> )	24.9 ± 5.5	25.6 ± 5.7
<b>Fluid status (n):</b>		
Normal	191 (42.5%)	7326 (64.9%)
Dehydrated	24 (5.35%)	902 (7.99%)
Fluid overload	24 (5.35%)	1036 (9.17%)
Missing	210 (46.8%)	2032 (18.0%)
<b>ICU-stay (n):</b>		
Any ICU-stay	22 (4.90%)	1253 (11.1%)
<b>Surgery (n):</b>		
Preoperative patients	35 (7.80%)	1104 (9.77%)
Postoperative patients	103 (22.9%)	2659 (23.5%)
<b>Length of stay (days):</b>		
Hospital	12 [2-151]	15 [2-393]
Unit	12 [2-151]	14 [1-280]
<b>Outcome after 30 days (n):</b>		
Still in hospital	21 (4.68%)	720 (6.37%)
Transferred to another hospital	36 (8.02%)	319 (2.82%)
Transferred to long-term care	24 (5.35%)	331 (2.93%)
Rehabilitation	10 (2.23%)	294 (2.60%)
Discharge home	192 (42.8%)	6449 (57.1%)
Death	17 (3.79%)	337 (2.98%)
Others	11 (2.45%)	230 (2.04%)
Missing	138 (30.7%)	2616 (23.2%)
<b>Readmitted (n):</b>	67 (14.9%)	892 (7.90%)

Results in percent referring to the total number of patients

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

Total cohort: 526 units, 11296 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-09
<b>Nutrition therapy (n)*:</b>		
Enteral nutrition	17 (3.79%)	970 (8.59%)
Parenteral nutrition	19 (4.23%)	523 (4.63%)
Enteral + parenteral nutrition	4 (0.89%)	166 (1.47%)
Special diet	24 (5.35%)	1427 (12.6%)
Protein/energy supplement	32 (7.13%)	864 (7.65%)
Hospital food	219 (48.8%)	6753 (59.8%)
Others	10 (2.23%)	507 (4.49%)
Missing	177 (39.4%)	1547 (13.7%)
<b>Lines &amp; tubes (n)*:</b>		
None	389 (86.6%)	8425 (74.6%)
One line	54 (12.0%)	2427 (21.5%)
More than one	6 (1.34%)	444 (3.93%)
Centralvenous	17 (3.79%)	845 (7.48%)
Nasogastric tube	6 (1.34%)	191 (1.69%)
Any other (PEG, PEJ, ...)	42 (9.35%)	2029 (18.0%)
<b>Affected organs (n)*:</b>		
Brain, nerves	36 (8.02%)	1325 (11.7%)
Eye, ear	1 (0.22%)	250 (2.21%)
Nose, throat	6 (1.34%)	385 (3.41%)
Heart, circulation	15 (3.34%)	1940 (17.2%)
Lung	36 (8.02%)	1280 (11.3%)
Liver	28 (6.24%)	654 (5.79%)
Gastrointestinal tract	98 (21.8%)	2259 (20.0%)
Kidney, urinary tract, femal genital tract	35 (7.80%)	1200 (10.6%)
Endocrine system	7 (1.56%)	706 (6.25%)
Skeleton, bone, muscle	53 (11.8%)	1601 (14.2%)
Blood, bone marrow	8 (1.78%)	491 (4.35%)
Skin	2 (0.45%)	273 (2.42%)
Ischaemia	-	185 (1.64%)
Cancer	113 (25.2%)	2067 (18.3%)
Infection	15 (3.34%)	737 (6.52%)
Pregnancy	-	37 (0.33%)
Others	10 (2.23%)	613 (5.43%)
No affected organ	163 (36.3%)	1524 (13.5%)
<b>Comorbidities (n)*:</b>		
Diabetes I/II	28 (6.24%)	1861 (16.5%)
Stroke	6 (1.34%)	514 (4.55%)
COPD	14 (3.12%)	647 (5.73%)
Myocardial infarction	11 (2.45%)	456 (4.04%)
Cardiac insufficiency	16 (3.56%)	1269 (11.2%)
Others	97 (21.6%)	3681 (32.6%)
No comorbidity	312 (69.5%)	5019 (44.4%)

Results in percent referring to the total number of patients

### III. YOUR PATIENTS ("Sheet 3a"):

Total cohort: 526 units, 11296 patients

	YOUR COUNTRY RESULTS	REFERENCE ND-09
<b>Weight loss within the last 3 months (n):</b>		
Total of patients answering	281 (96.2%)	8518 (95.3%)
Yes	135 (46.2%)	3864 (43.3%)
No	105 (36.0%)	3141 (35.2%)
No, I've gained weight	25 (8.56%)	801 (8.97%)
I don't know	16 (5.48%)	712 (7.97%)
<b>Category of weight decrease (n):</b>		
Patients reporting weight loss	135 (46.2%)	3864 (43.3%)
0-4 kg	67 (22.9%)	1796 (20.1%)
5-8 kg	23 (7.88%)	774 (8.66%)
> 8 kg	27 (9.25%)	932 (10.4%)
Not sure	13 (4.45%)	299 (3.35%)
Missing	5 (1.71%)	63 (0.71%)
<b>"How well have you eaten during the last week?"(n):</b>		
Normal	111 (38.0%)	4208 (47.1%)
A bit less than normal	79 (27.1%)	2043 (22.9%)
Less than half of normal	50 (17.1%)	1223 (13.7%)
Less than a quarter to nearly nothing	40 (13.7%)	1042 (11.7%)
Missing	12 (4.11%)	418 (4.68%)
<b>"I ate less because"(n)*:</b>		
Total of patients answering	163 (55.8%)	4263 (47.7%)
Loss of appetite	109 (37.3%)	2505 (28.0%)
Problems with swallowing/chewing	19 (6.51%)	523 (5.85%)
Nausea	30 (10.3%)	719 (8.05%)
Other reasons	58 (19.9%)	1359 (15.2%)
<b>"Can you walk without assistance?"(n):</b>		
Yes	186 (63.7%)	5518 (61.8%)
No, only with assistance	67 (22.9%)	1991 (22.3%)
No, I stay in bed	25 (8.56%)	980 (11.0%)
Missing	14 (4.79%)	445 (4.98%)
<b>"Did you need help to complete the questionnaire?"(according to patient) (n):</b>		
Yes	181 (62.0%)	5347 (59.9%)

Results in percent referring to the total number of patients answering

### III. YOUR PATIENTS ("Sheet 3b"):

Total cohort: 526 units, 11296 patients

YOUR COUNTRY RESULTS	REFERENCE ND-09
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#### Fluid and supplement intake (n):

Patients with fluid intake	261 (93.5%)	7104 (82.7%)
Drinks per patient & day (l)	1.07	0.85
Patients with supplements	55 (19.7%)	1644 (19.1%)
Supplements per patient & day (l)	0.08	0.09

Results referring to the total number of completed questionnaires

#### Hospital food intake:

Your country results (referring to the total number of completed questionnaires=279)					
n (%)	all	1/2	1/4	nothing	no answer
Breakfast	149 (53.4%)	53 (19.0%)	28 (10.0%)	44 (15.8%)	5 (1.79%)
Lunch	113 (40.5%)	51 (18.3%)	31 (11.1%)	58 (20.8%)	26 (9.32%)
Dinner	99 (35.5%)	58 (20.8%)	34 (12.2%)	37 (13.3%)	51 (18.3%)

Reference results (referring to the total number of completed questionnaires=8589)					
n (%)	all	1/2	1/4	nothing	no answer
Breakfast	4164 (48.5%)	1649 (19.2%)	779 (9.07%)	1286 (15.0%)	711 (8.28%)
Lunch	3560 (41.4%)	2273 (26.5%)	1130 (13.2%)	1179 (13.7%)	447 (5.20%)
Dinner	3394 (39.5%)	1922 (22.4%)	986 (11.5%)	1063 (12.4%)	1224 (14.3%)

Your country results (referring to the total number of completed questionnaires=279)			
n (%)	Snack 1	Snack 2	Snack 3
Cakes, sweets, biscuits	16 (5.73%)	38 (13.6%)	15 (5.38%)
Fresh fruits	35 (12.5%)	23 (8.24%)	23 (8.24%)
Sandwiches	7 (2.51%)	3 (1.08%)	50 (17.9%)
Dairy products	8 (2.87%)	6 (2.15%)	20 (7.17%)
Others	14 (5.02%)	10 (3.58%)	14 (5.02%)
Nothing	85 (30.5%)	70 (25.1%)	58 (20.8%)
Missing	127 (45.5%)	134 (48.0%)	133 (47.7%)

Reference results (referring to the total number of completed questionnaires=8589)			
n (%)	Snack 1	Snack 2	Snack 3
Cakes, sweets, biscuits	651 (7.58%)	1447 (16.8%)	742 (8.64%)
Fresh fruits	988 (11.5%)	941 (11.0%)	798 (9.29%)
Sandwiches	185 (2.15%)	327 (3.81%)	511 (5.95%)
Dairy products	584 (6.80%)	718 (8.36%)	723 (8.42%)
Others	304 (3.54%)	420 (4.89%)	335 (3.90%)
Nothing	2966 (34.5%)	2178 (25.4%)	2576 (30.0%)
Missing	3384 (39.4%)	3277 (38.2%)	3501 (40.8%)