

# nutritionDay

## Overview of ESPEN European Project

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FRIEDRICH-ALEXANDER  
UNIVERSITÄT  
ERLANGEN-NÜRNBERG

FACULTY OF MEDICINE



Institute for Biomedicine  
of Aging



Interdisciplinary Center  
for Aging Research

nutritionDay worldwide

**Save the date!**



**7. November 2013**

# nutritionDay

## Overview of ESPEN European Project

Project – What is nutritionDay?

History – Why nutritionday?

Participation

Recent Activities

Limitations & Strengths



# nutritionDay worldwide

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51 Countries

30 Languages

4.877 Hospital / nursing home units

151.617 Participants



## Coordination

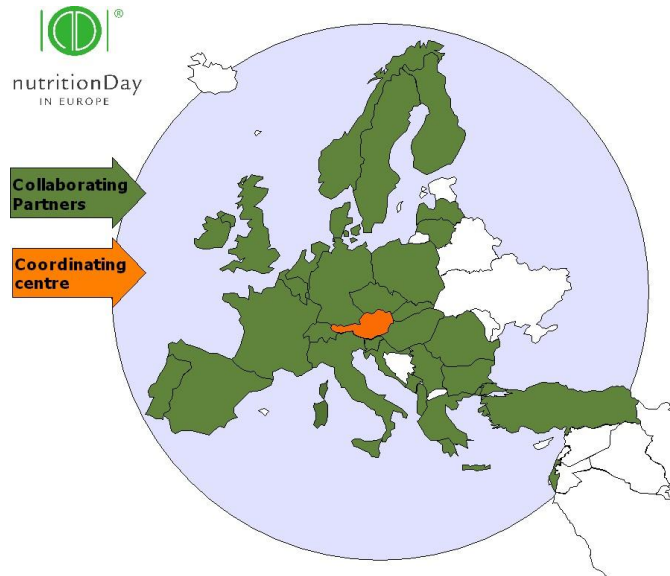
### Central

Michael Hiesmayr,  
Karin Schindler  
Medical University Vienna

### Nursing home

Dorothee Volkert  
Cornel Sieber  
University Erlangen-Nürnberg





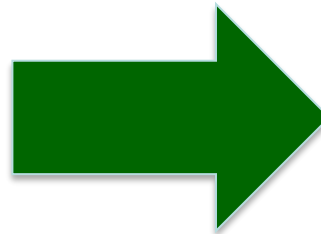
**2006** nD in **Hopitals**

**2007** nD in **ICU**  
nD in **Nursing Homes**

**2012** nD in **Oncology**



**nutritionDay**  
**IN EUROPE**



**nutritionDay**  
**WORLDWIDE**

## **1-day cross-sectional data collection**

in yearly intervals

by questionnaire

**in hospitals and nursing homes**

actively involving staff

without need of specialist knowledge

**with individual feedback to each unit**



- ➔ **Increase awareness of malnutrition**
- ➔ **Benchmarking with other institutions**

**[www.nutritionDay.org](http://www.nutritionDay.org)**

Registration

Code-Order

Download of questionnaires

Data input

Download of feedback report

➔ Certificate for successful participation



# Certificate

*Unit (Institution)*

has participated in *year*  
in the annual worldwide hospital/nursing home nutrition benchmarking programme  
and fulfilled criteria to obtain this certificate.

This unit has contributed information to maintain  
and improve the quality of nutritional care in  
nutritionDay in hospitals worldwide

[www.nutritionday.org](http://www.nutritionday.org)

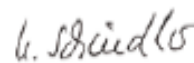
*Date of nutritionDay*



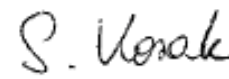
Prof. Dr. Michael Hiesmayr  
(Project Leader)



Prof. Pierre Singer  
(ESPEN Chairman)



Dr. Karin Schindler  
(Project Coordinator)



Sigrid Kosak, MA  
(Project Manager)



## Questionnaires

Sheet I	Institutional characteristics
Sheet II a	Main characteristics of patients / residents
Sheet II b	Mini Nutritional Assessment (SF)
Sheet III a	Nutritional characteristics of participants: Body weight – weight loss – intake last week
Sheet III b	Participant at nD: plate diagramm at lunch
Sheet IV	Follow-up after 30 days / 6 months

Detailed instructions and explanations

## Patient / Resident

age, health, mobility, need of care

## Institution

unit size, staff, nutritional care



## Patient's / Resident's nutritional status

BMI, weight loss, malnutrition, intake last week, intake at nD

All

1/2

1/4

nothing

don't know



## Outcome

Mortality, place of residence, hospitalisations, weight loss

# Patient's journey



Determinants  
Risk faktors



What will be?

# nutritionDay

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## Situation before ND (2003)

- Experts had identified  
**„hospital malnutrition“**  
**„disease related undernutrition“**  
as a major problem in institutional health care
- 15-40% of hospitalised patients „malnourished“
- Neither systematic assessment nor treatment of MN
- Lack of nutritional awareness & education
- Lack of clearly defined responsibilities

<https://wcm.coe.int/rsi/CM/index.jsp>

**COUNCIL OF EUROPE**  
COMMITTEE OF MINISTERS

## **Resolution ResAP(2003)3 on food and nutritional care in hospitals**

*(Adopted by the Committee of Ministers on 12 November 2003  
at the 860th meeting of the Ministers' Deputies)*

**18 countries within the European  
Council signed up for „hospital  
nutrition“ as future political priority**

Austria  
Belgium  
Cyprus  
Denmark  
Finland  
France  
Germany  
Ireland  
Italy  
Luxembourg  
The Netherlands  
Norway  
Portugal  
Slovenia  
Spain  
Sweden  
Switzerland  
United Kingdom

# Why nutritionDay?

- Increase awareness
- Create a community that speaks a similar language and may produce together new evidence
- Have up-to-date local, regional, national data that can be compared
- Increase understanding and knowledge
  - Determinants of malnutrition and relation to outcome
  - Variability between institutions
  - Risk groups

# nutritionDay

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**Participation**

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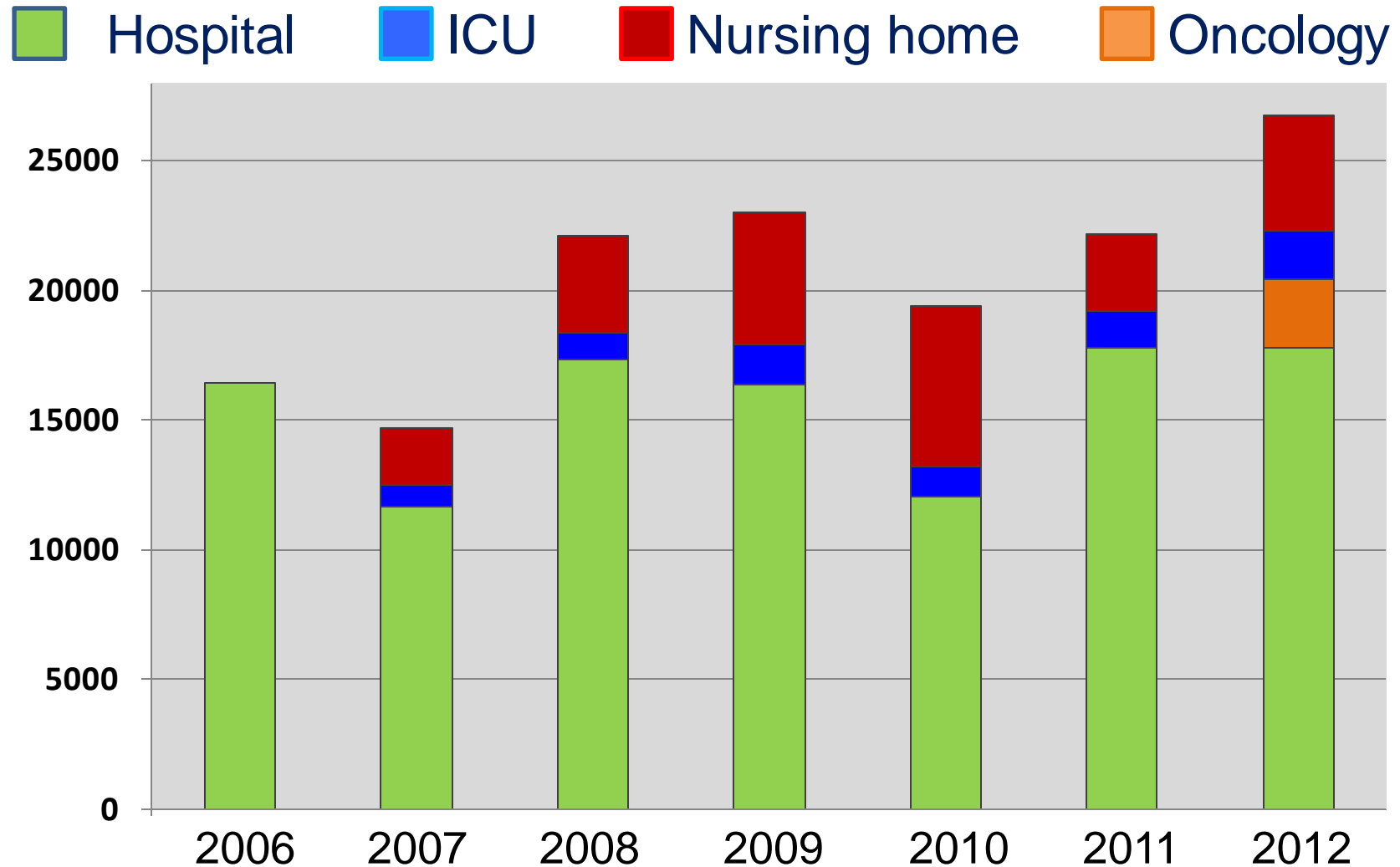


	<b>Centers</b>	<b>Units</b>	<b>Participants</b>
<b>Hospital</b>	1.219	3.697	115.969
<b>ICU</b>	203	510	8.333
<b>NH</b>	366	670	27.315
	<hr/>	<hr/>	<hr/>
<b>Total</b>	1787	4877	<b>151.617</b>

**51 Countries**

(2006 – 2012)

# nutritionDay – Participants per year





**ND: 6084**

**ICU: 558**

**onco: 951**

BE: 1  
BR: 30  
BG: 26  
DK: 16  
DE: 11  
FR: 18  
IN: 89  
IL: 31  
JP: 62  
KVV: 40  
NL: 4  
NO: 10  
OM: 19  
AT: 145  
PA: 21  
PL: 2  
PT: 281  
RO: 12  
CH: 16  
ES: 39  
CZ: 14  
TR: 22  
AE: 32  
US: 40

981 ONCOLOGY Patients

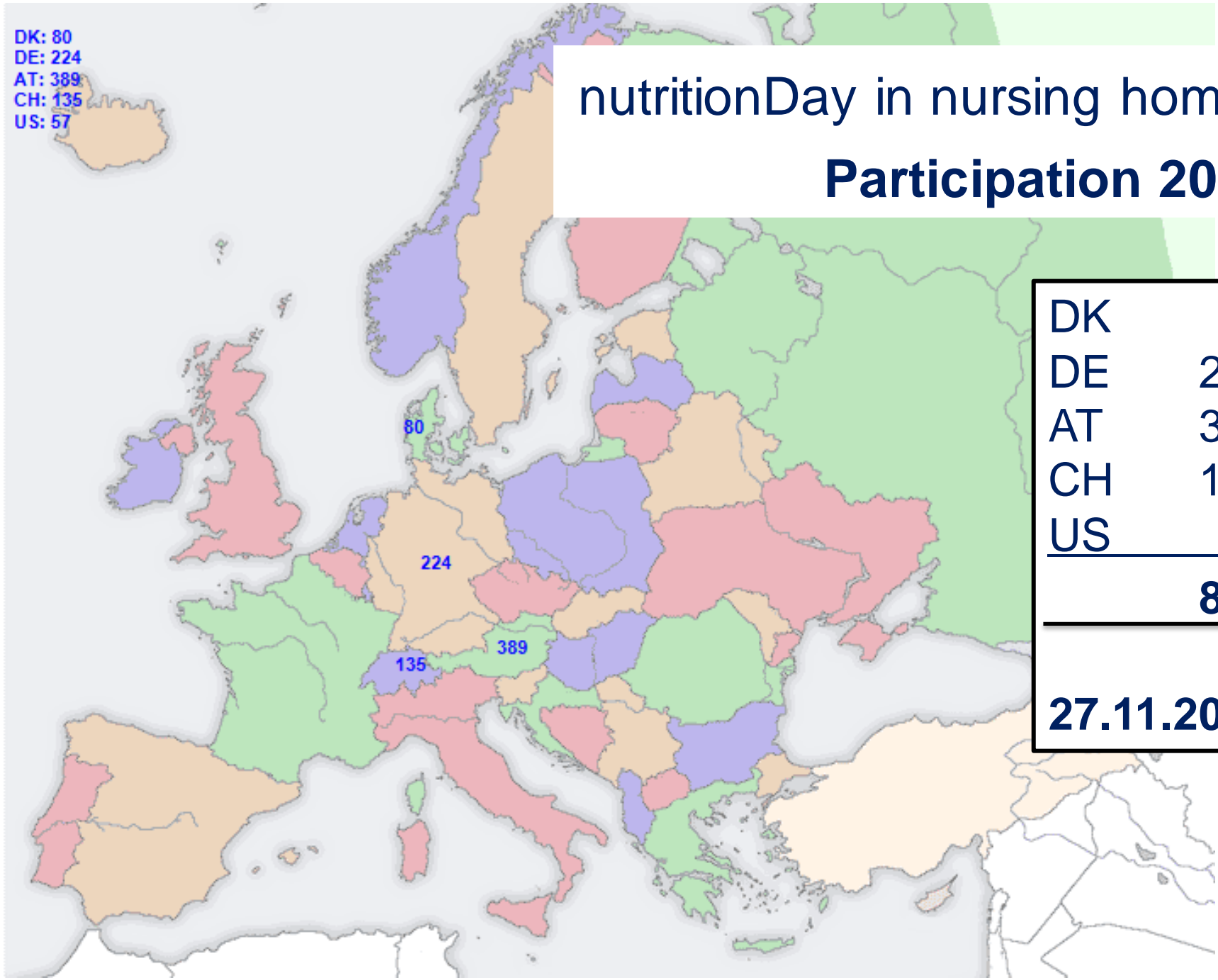
DK: 80  
DE: 224  
AT: 389  
CH: 135  
US: 57

# nutritionDay in nursing homes

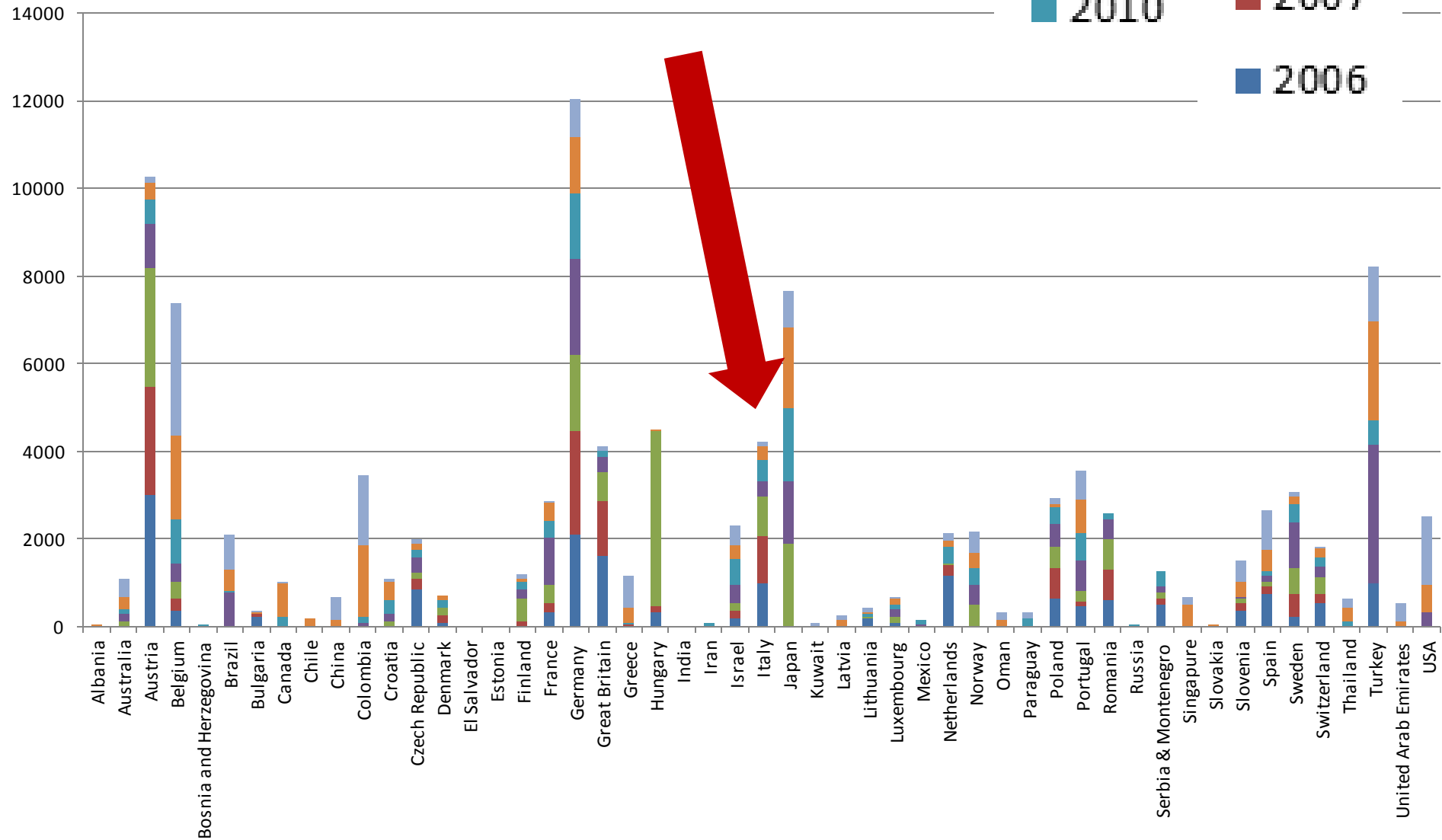
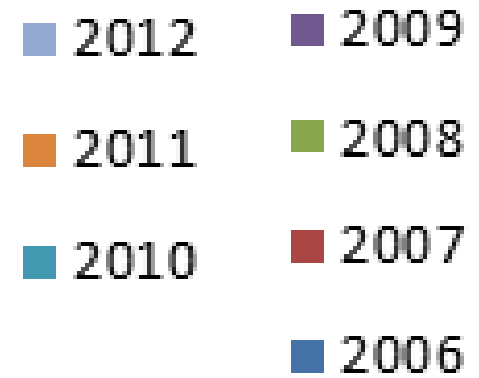
## Participation 2013

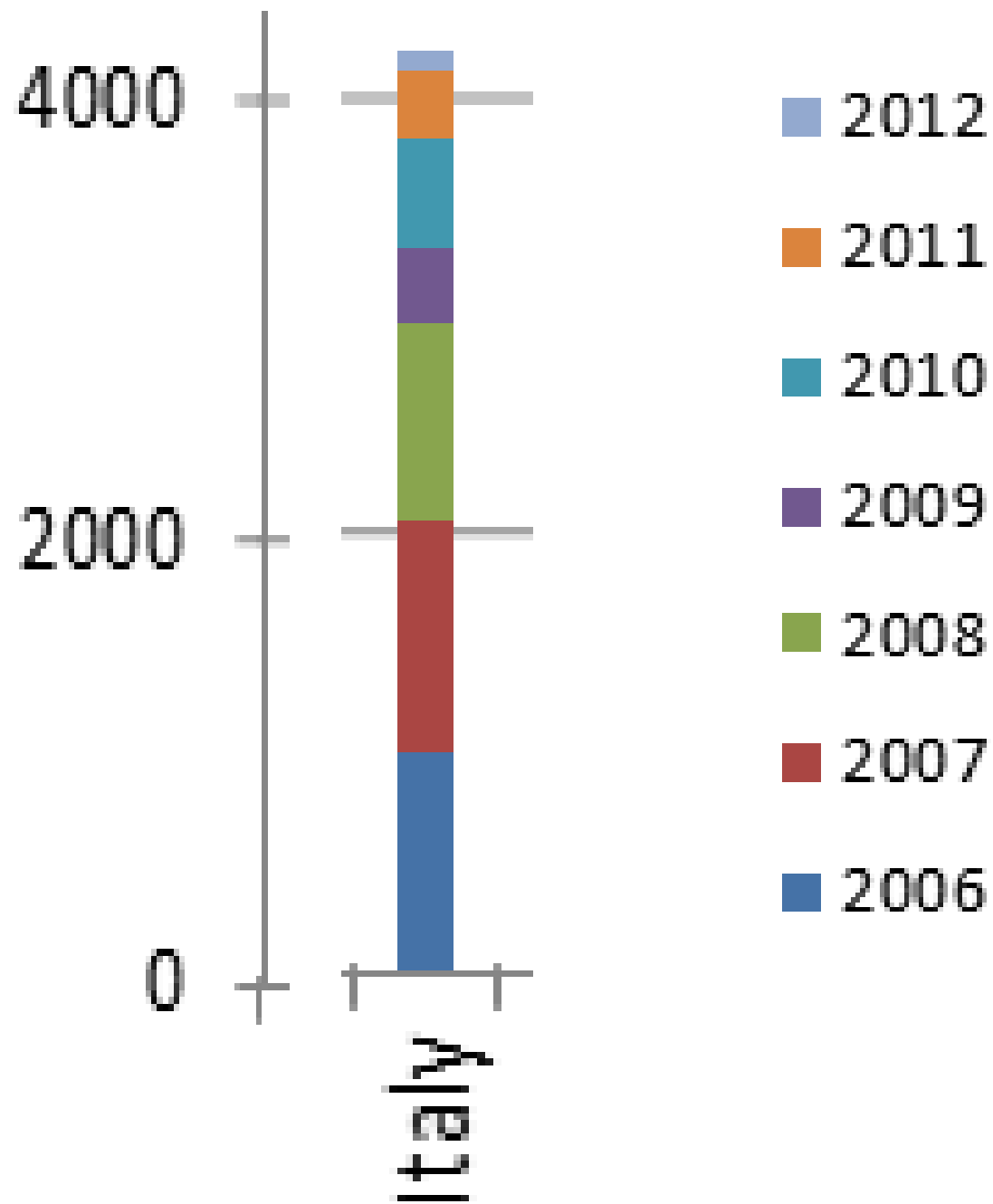
DK	80
DE	224
AT	389
CH	135
US	57
<hr/>	
	<b>885</b>

**27.11.2013**



# nutritionDay – Participants per country per year





# nutritionDay

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# New nD Flyers



**FAU** FRIEDRICH-ALEXANDER  
UNIVERSITÄT  
ERLANGEN-NÜRNBERG  
MEDIZINISCHE FAKULTÄT

**Contact and information**

Institut für Biomedizin des Alterns  
Friedrich-Alexander-Universität  
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nh@nutritionday.org  
www.nutritionday.org

**Nutrition makes the difference**

**nutritionDay**  
in nursing homes

7<sup>th</sup> November 2013




Take part!  
Register!



**nutritionDay**  
WORLDWIDE

www.nutritionday.org

An initiative of the nutritionDay team with support of



Europäische Gesellschaft  
für klinische Ernährung und  
Stoffwechsel (ESPE)



Österreichische  
Arbeitsgemeinschaft  
für klinische Ernährung (AKE)



Medizinischen Universität Wien  
(MUM)



and  
Deutschen Gesellschaft für  
Ernährungsmedizin (DGEM)

around the world. Up to now more than 500 nursing homes  
with over 22,000 residents from 17 countries have joined the  
project.

**Your profit**

**Quality safety**  
Participating in nutritionDay with your nursing home will  
provide valuable information on the nutritional status of resi-  
dents in your facility. Information received can be used for  
quality safety and quality improvement purposes.

**Benchmarking:**  
Your nutritionDay report compares the nutritional situation of  
your nursing home residents with all other participating nursing  
homes and therewith provides specific benchmarking of your  
facility. Annual participation in nutritionDay gives an opportu-  
nity to monitor potentials and weaknesses of your institution  
over the years.

**Certification:**  
For successful participation you will receive a nutritionDay  
certificate. Data entry can be easily performed online over the  
nutritionDay website: [www.nutritionday.org](http://www.nutritionday.org)

nutritionDay coordination centre.

Results of a participating nursing home will only be forward-  
ed to the participating facility itself. This analysis also com-  
pares your individual nursing home results to all nursing homes  
participating in the same year and thus provides a worldwide  
benchmarking of your facility.

**Your nutritionDay participation -**

- promotes good nutritional care in your institution
- increases awareness for malnutrition in your facility
- monitors the development of the nutritional situation of  
residents in your nursing home over years
- provides an anonymous comparison of your nursing  
home to other nursing homes worldwide
- opens doors for an active partnership of nursing home  
residents, nurses and physicians of your institution
- may improve the nutritional situation and quality of life  
of your nursing home residents



**7<sup>th</sup> November 2013**  
**nutritionDay worldwide - Join in!**

**Benchmark  
Your Nutrition Care**

- > One day patient data collection
- > Check outcome
- > Get comparison with most recent  
international reference database



**One day - 4 options**

- > nD in hospital wards
- > nD oncology
- > nD in intensive care units
- > nD in nursing homes

**Your benefits**

- > Benchmarking
- > Tool for quality assessment
- > Certification

**Collect data**



**Receive report**



[www.nutritionday.org](http://www.nutritionday.org)  
[office@nutritionday.org](mailto:office@nutritionday.org)

**Visit our stand at the congress venue!**





as well: 15-40% of all hospitalised individuals are "one scheduled day worldwide" affected.

This results in enormous costs for the health care system, prolonged length of hospital stay and unfavourable prognosis for the patients.

In 2003 the Council of Europe agreed on a resolution which addresses this particular problem. 18 member states subsequently endorsed this.

"nutritionDay worldwide" contributes to the practical application of this political statement in European hospitals and nursing homes.

The project "nutritionDay worldwide" addresses improved patient safety and quality of care by raising awareness and increasing knowledge about disease related malnutrition.

easy: No special knowledge is needed for the implementation of the project. All necessary documents are provided by the coordinating centre.

native variety: The questionnaires are available in many languages. This enables the project to include minority groups of patients (e.g. migrants, non native speakers).

anonymous: Name and details of the participating centre and unit are encoded. This guarantees an anonymous handling and analysis of all participating units.

comparable: Each ward receives a comparison of its own results to reference data of all units of the same speciality type. Repeated participation allows benchmarking.

2. unit all patients: questionnaire about all patients included into the audit (1 line per patient)

3. patients' questionnaires:  
a) one sheet about weight monitoring, mobility and social contact  
b) one sheet about nutritional behaviour on "nutritionDay" (1 sheet per patient)

4. outcome  
The patients' situation is reassessed at a predetermined period after "nutritionDay" (discharged, transferred,...).

+ oncology sheets  
for all oncological patients in your ward

Collected data can either be transfer-red online or data sheets can be sent via mail to the coordinating centre.

[www.nutritionday.org](http://www.nutritionday.org) [office@nutritionday.org](mailto:office@nutritionday.org)







## New nD Feedback Reports

### Results on one Page

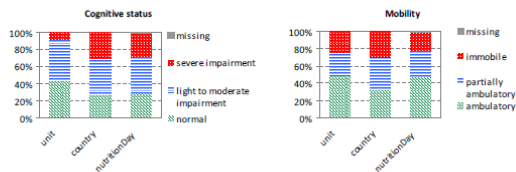
#### Structural aspects of the nutritionDay audit (Sheet I)

Feature	unit	country	nutritionDay
Number of residents	89	34 [13-56]	35 [10-83]
Number of participants nutritionDay	49	32 [5-96]	29 [5-237]
Resident per Nurse	17.8	2.3 [1.5-6.2]	3.8 [1.5-12.3]
Dietician or person dedicated to nutritional care	No	52.2% Yes	49% Yes
In your nursing home unit?			
Nutritional standards/guidelines existing?	No	87.4% Yes	80.2% Yes

#### Characteristics of residents of your nursing home unit (Sheet II)

78% of your residents are female. The mean age of your residents is 82 [56-91]. Your country: 75% female, mean age 87 [63-98], NutritionDay: 69% female, mean age 83 [41-96].

The tables show the prevalence of cognitive and mobility restraints.

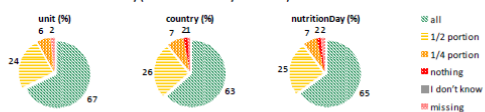


#### Nutritional situation of residents

Feature	sheet	unit	country	nutritionDay
BMI (kg/m <sup>2</sup> )	II	25 [16-33]	24 [18-35]	24 [17-35]
BMI <20	cal.	12	24.5	15.8
Subj. estimation of staff "no. of maln. residents"	II	7	14.3	11.8
MNA malnourished residents	IIb	9	18.4	18.9
Weight loss within last year "yes"	IIa	6	12.2	34.6
Weight loss >5kg within last year "yes"	IIa	-	-	10.9

(cal.) Calculation based on entered information, MNA Mini Nutritional Assessment

#### Amount eaten on nutritionDay ("the resident today" sheet IIb)



### Results in Detail

#### I. Level: nursing home unit

##### a) Structure of your nursing home unit (Sheet I)

The table gives an overview of the structure of your nursing home unit - here you can see who is working in your unit.

feature	unit	country	nutritionDay
Number of residents	89	34 [13-56]	35 [10-83]
Number of participants nutritionDay	49	32 [5-96]	29 [5-237]
Participation rate	55%	100 [55-100]	100 [29-100]
Residents per professional nursing staff	17.8	2.3 [1.5-6.2]	3.8 [1.5-12.3]
Residents per assistant nursing staff	4.2	9 [2.7-30]	5 [1.3-36]
Permanent physician available	89	30 [6-55]	25 [6-74]
Residents per external physician	89	6 [1.9-24]	10 [2.2-40]
Residents per director of nurses	-	33 [13-56]	34 [10-76]
Residents per dietician/dietetic technician	-	34 [20-56]	35 [16-74]
Residents per physical therapist/occupational therapist/speech therapist	89	22 [5-54]	27 [5.4-76]
Residents per music therapist/ animator	-	22 [7-54]	21.7 [7.4-55]
Residents per community service/volunteer	-	11 [1.5-43]	11.3 [1.6-56]

##### b) Quality criteria for nutrition in your nursing home unit (Sheet I)

###### Dietician/Oecotrophologist

You have indicated that 0 dietician(s)/oecotrophologist(s) is/are responsible for residents in your unit. The desired goal is that at least one dietician/oecotrophologist(s) is responsible for residents in your unit. Your unit has not reached this goal. 54% of all nursing home units in your country and 43% of all nursing home units indicate that at least one dietician/oecotrophologist is responsible for the residents.

###### Person responsible for nutritional care

You have indicated that 0 person(s) is/are responsible for nutritional care in your nursing home unit. The desired goal is that at least one person dedicated to nutritional care is responsible for residents in your unit. Your unit has not reached this goal. In 52% of all nursing home units in your country and in 43% of all nursing home units at least one person is dedicated to nutritional care.

###### Assessment of weight

You have indicated that residents in your nursing home unit are weighed approx. once a month. You have reached the desired goal of weighing residents at least 1 x per month. 90% of all national nursing homes and 83% of all nursing homes internationally weigh their residents 1x per month.

###### Nutritional screening

You have indicated that you screen your residents for malnutrition or risk of malnutrition only at admission. You have not reached the desired goal of performing a nutritional screening at least 1 x per month. In 79% of all national nursing home units and 57% of all international nursing home units nutritional screening is performed 1 x per month.

###### Standards for nutritional screening

You have indicated that enteral and parenteral nutrition is performed according to [answer missing]. You have not reached the desired goal of performing nutritional care according to national or local standards. In 86% of all national nursing home units and 69% of all international nursing home units clinical nutrition is performed according to local or national standards.

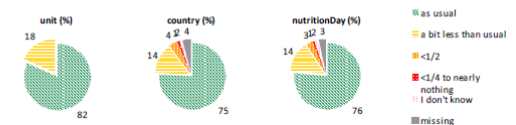
### b) Nutritional status of residents

#### Number of alerting nutritional results

feature	sheet	unit	country	nutritionDay
BMI (kg/m <sup>2</sup> )	II	25 [16-33]	24 [18-35]	24 [17-35]
BMI <20	cal.	12	24.5	15.8
BMI <22	cal.	18	36.7	30.4
Nutritional status according to nursing staff	II			
...malnourished residents		7	14.3	11.8
...residents at nutritional risk		17	34.7	15.2
Nutritional status according to MNA	IIb			
...malnourished residents		9	18.4	18.9
...residents at nutritional risk		22	44.9	46.2
Weight loss within last year	IIa			
...yes		6	12.2	34.6
...>5 kg		-	-	10.9
Weight loss within the last 3 months (MNA)	IIb			
...>1 kg		3	6.1	26.3
Well nourished residents according to nursing staff but malnourished according to ...				
...BMI (<20)	cal.	-	-	3.4
...weight loss (> 5kg)	cal.	-	-	5.2
Artificial nutrition	II			
Sip feeds		-	-	13.4
Tube feeds		-	-	3.3
Parenteral nutrition		-	-	0.4
Subcutaneous nutrition		-	-	0.1
...combinations		-	-	0.2

Cal. Calculation based on data entry, MNA Mini Nutritional Assessment instrument

#### Nutritional intake in previous week (Sheet IIa)



#### Summary of alerting nutritional results of your nursing home resident

- 24% of all residents are malnourished according to BMI (<20kg/m<sup>2</sup>).
- According to nursing staff estimations 14% of all residents are classified as malnourished.
- According to Mini Nutritional Assessment (MNA) (Sheet IIa) 18% are classified as malnourished and 45% are at nutritional risk.
- 12% of all residents have lost weight within the last year and 0% of which have lost over 5 kg.
- 18% of all residents have eaten less than usual (see figure).

## Styria Initiative

- Residents' / proxies' complaints and benchmarking need
- nD 2012:           61 NHs  
                  104 units  
                  3125 residents
- Discussion at political level



➔ Nursing home law will be revised in order to improve nutritional care

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**Strengths & Limitations**



## Strengths

- Worldwide, well-known, exciting project
- Large and growing database
- Yearly repetition – continuous data collection
- Data at individual, unit, country level

## Limitations

- Data assessment by numerous persons  
→ limited quality
- Limited number of fixed parameters
- Hypothesis generating

nutritionDay worldwide

**Save the date!**



**6. November 2014**

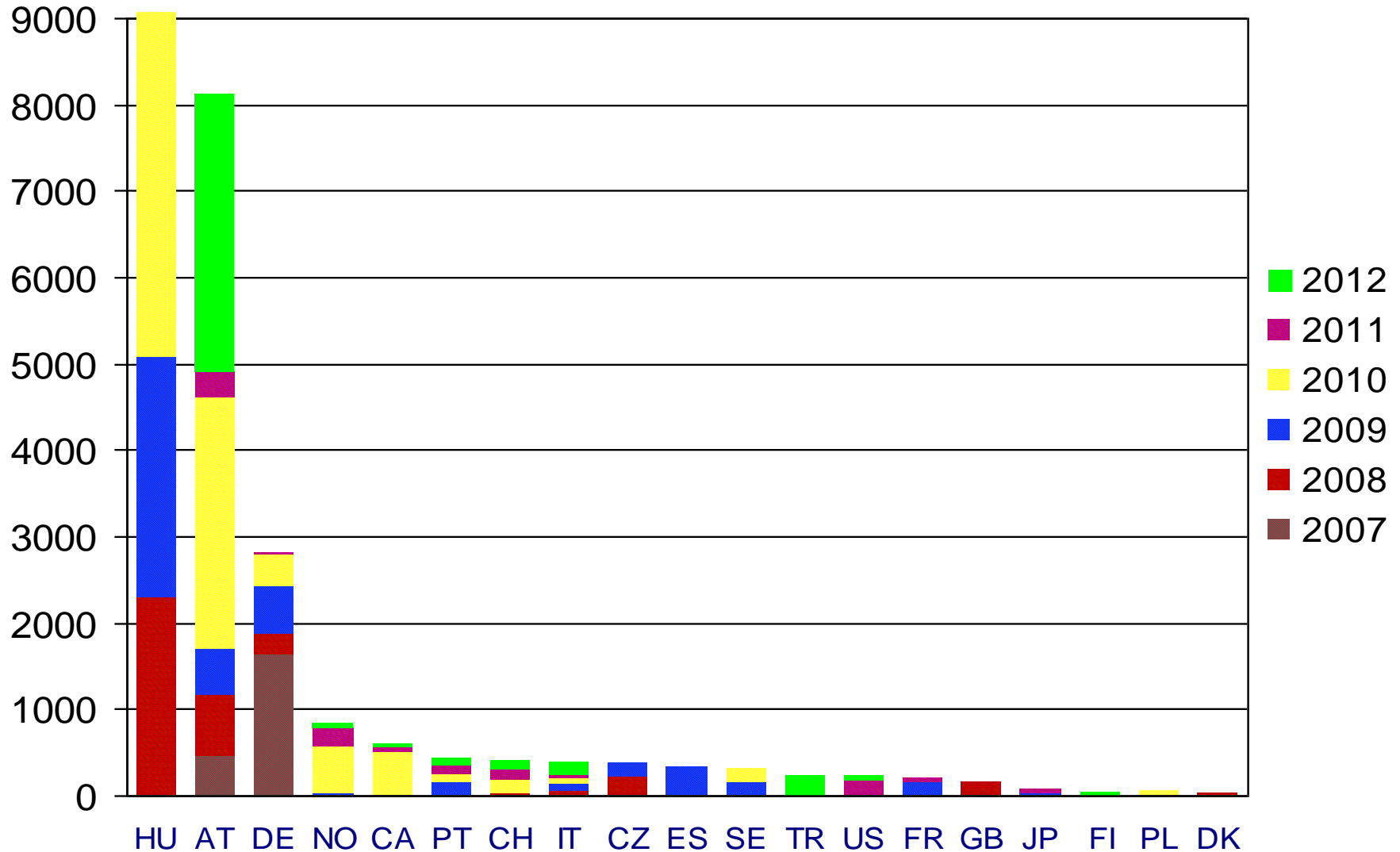
# nutritionDay

## Overview of ESPEN European Project

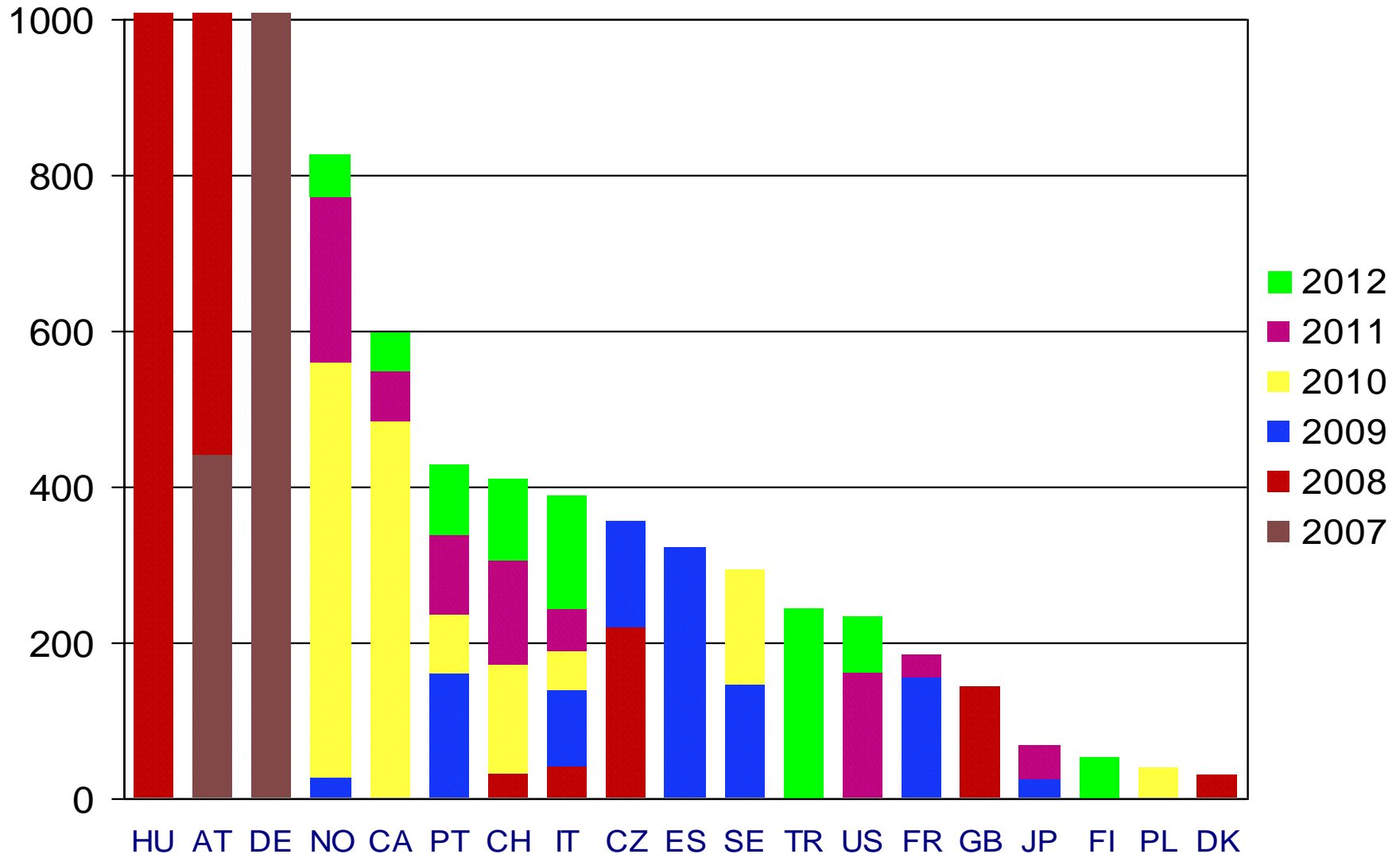
**Thank you  
for your attention!**



# nD in NHs – participants per country 2007-2012



# nD in NHs – participants per country 2007-2012





## Feedback Reports

- New structure:      Results on one page  
                             Results in detail:
  - unit level – including 5 quality indicators
  - individual level: characteristics & nutritional status
- Results presented in figures, graphics and text
- Results presented at unit level
- Unit results compared to national and international nD data from last 3 years
- Definition of quality indicators of nutritional care

## Challenges

- Time constraints of coordination teams
- Decreasing participation – low interest of NHs
  - time constraints
  - regulatory constraints
  - many other obligations besides nutritional care
- Different health care systems in different countries
- To improve network of stakeholders

## Contact and information

Institut für Biomedizin des Alterns  
Friedrich-Alexander-Universität  
Erlangen-Nürnberg  
nh@nutritionday.org  
www.nutritionday.org

An initiative of the nutritionDay team with support of



Europäische Gesellschaft  
für klinische Ernährung und  
Stoffwechsel (ESPEN)



Österreichische  
Arbeitsgemeinschaft  
für klinische Ernährung (AKE)



Medizinischen Universität Wien  
(MÜW)



and  
Deutschen Gesellschaft für  
Ernährungsmedizin (DGEM)



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MEDIZINISCHE FAKULTÄT

Nutrition makes the difference

# nutritionDay in nursing homes

7<sup>th</sup> November 2013



Take part!

Register!



nutritionDay  
WORLDWIDE

[www.nutritionday.org](http://www.nutritionday.org)

## Background



Nursing home residents are often elderly people who have an increased need for care. Furthermore many nursing homes have limited personnel resources and therefore providing comprehensive care for all residents is difficult. This situation in nursing homes may also lead to less time for nutritional care for residents.

In 2007 for the first time **nutritionDay** was successfully performed in nursing homes. Its overall aim is to evaluate the current state of the nutritional status of nursing home residents using easy to complete questionnaires.

Since the first conduction of **nutritionDay** in Austria and Germany the project has been well established in nursing homes around the world. Up to now more than 500 nursing homes with over 22,000 residents from 17 countries have joined the project.

## Your profit

### Quality safety

Participating in **nutritionDay** with your nursing home will provide valuable information on the nutritional status of residents in your facility. Information received can be used for quality safety and quality improvement purposes.

### Benchmarking:

Your **nutritionDay** report compares the nutritional situation of your nursing home residents with all other participating nursing homes and therewith provides specific benchmarking of your facility. Annual participation in **nutritionDay** gives an opportunity to monitor potentials and weaknesses of your institution over the years.

### Certification:

For successful participation you will receive a **nutritionDay** certificate. Data entry can be easily performed online over the **nutritionDay** website: [www.nutritionday.org](http://www.nutritionday.org)

## Methods



### **nutritionDay's three main characteristics are...**

**On one day:** The nutritional situation is assessed on one defined day. This year **nutritionDay** will be on the **7<sup>th</sup> of November 2013**

**Easy:** Participation is easy. On **nutritionDay** you have to complete three questionnaires which do not require special skills and knowledge or extra devices and personnel resources.

**Anonymous:** Name and details of your nursing home are encoded and anonymous. This guarantees anonymous handling and analysis of all participating units by the **nutritionDay** coordination centre.

Results of a participating nursing home will only be forwarded to the participating facility itself. This analysis also compares your individual nursing home results to all nursing homes participating in the same year and thus provides a worldwide benchmarking of your facility.

## Your **nutritionDay** participation -

- promotes good nutritional care in your institution
- increases awareness for malnutrition in your facility
- monitors the development of the nutritional situation of residents in your nursing home over years
- provides an anonymous comparison of your nursing home to other nursing homes worldwide
- opens doors for an active partnership of nursing home residents, nurses and physicians of your institution
- may improve the nutritional situation and quality of life of your nursing home residents

## New Feedback Reports

### **Quality indicators of nutritional care at unit level**

- Body weight measurement at least once a month
- Screening for malnutrition at least once a month
- Person responsible for nutritional care
- Dietitian available
- Written procedures for nutritional care

## Future strategies

- Modification of questionnaires
  - shorten → more focused
  - additional questions, e.g. end of life situation, type of NH
- More focused
  - geriatric nursing homes (age >65 y)
  - few countries
- Inclusion of students for nD data assessment
- Assessment of NH structures and needs in different countries
- Competition “Europeans best nutritional care concept”

## Our interests

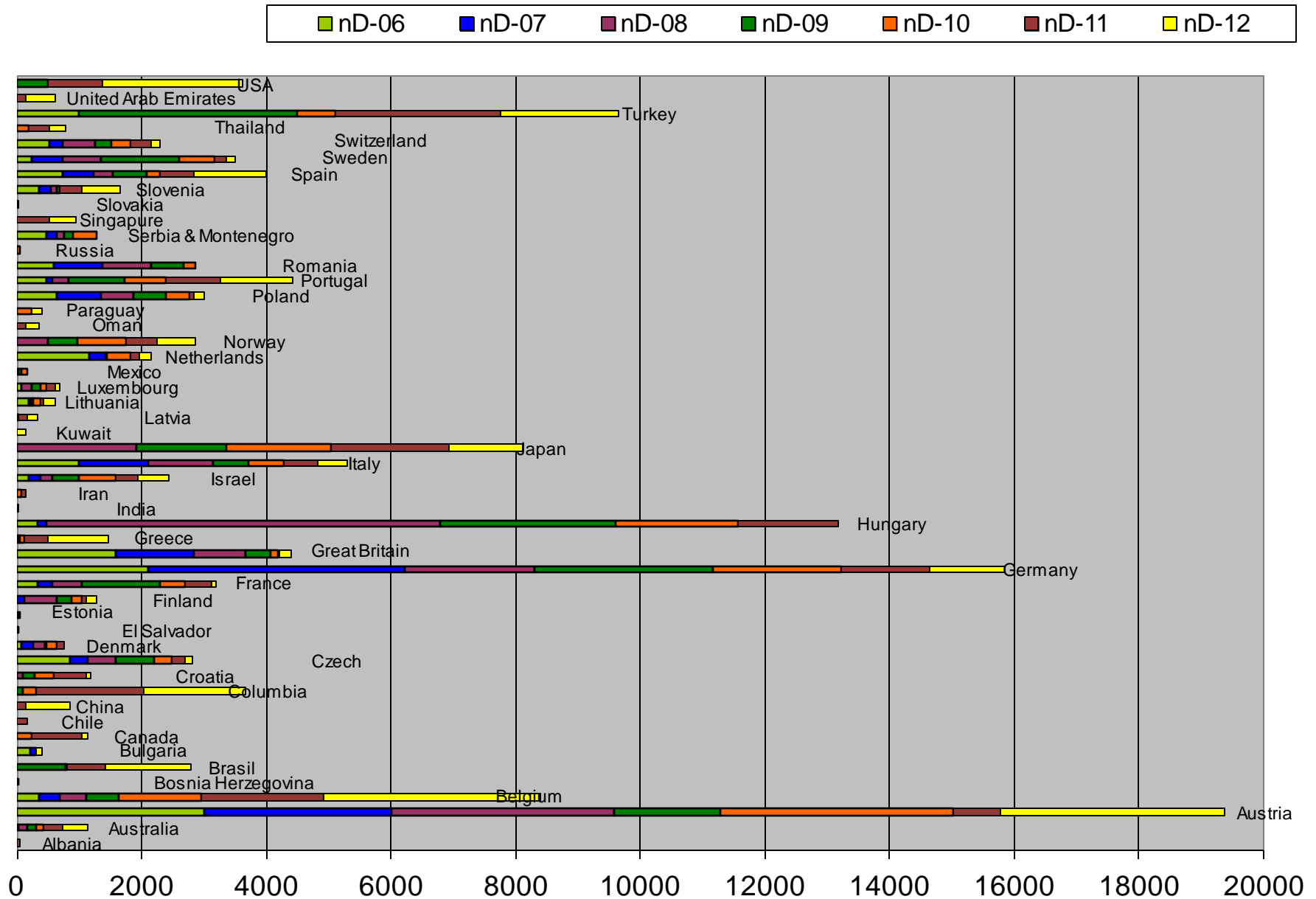
- Increase awareness for nutrition
  - improve nutritional care
  - avoid malnutrition
  - improve quality of life of residents
- Identification of determinants of dietary intake and nutritional status
  - individual level
  - institutional level
- Identification of effective measures at different levels to avoid malnutrition

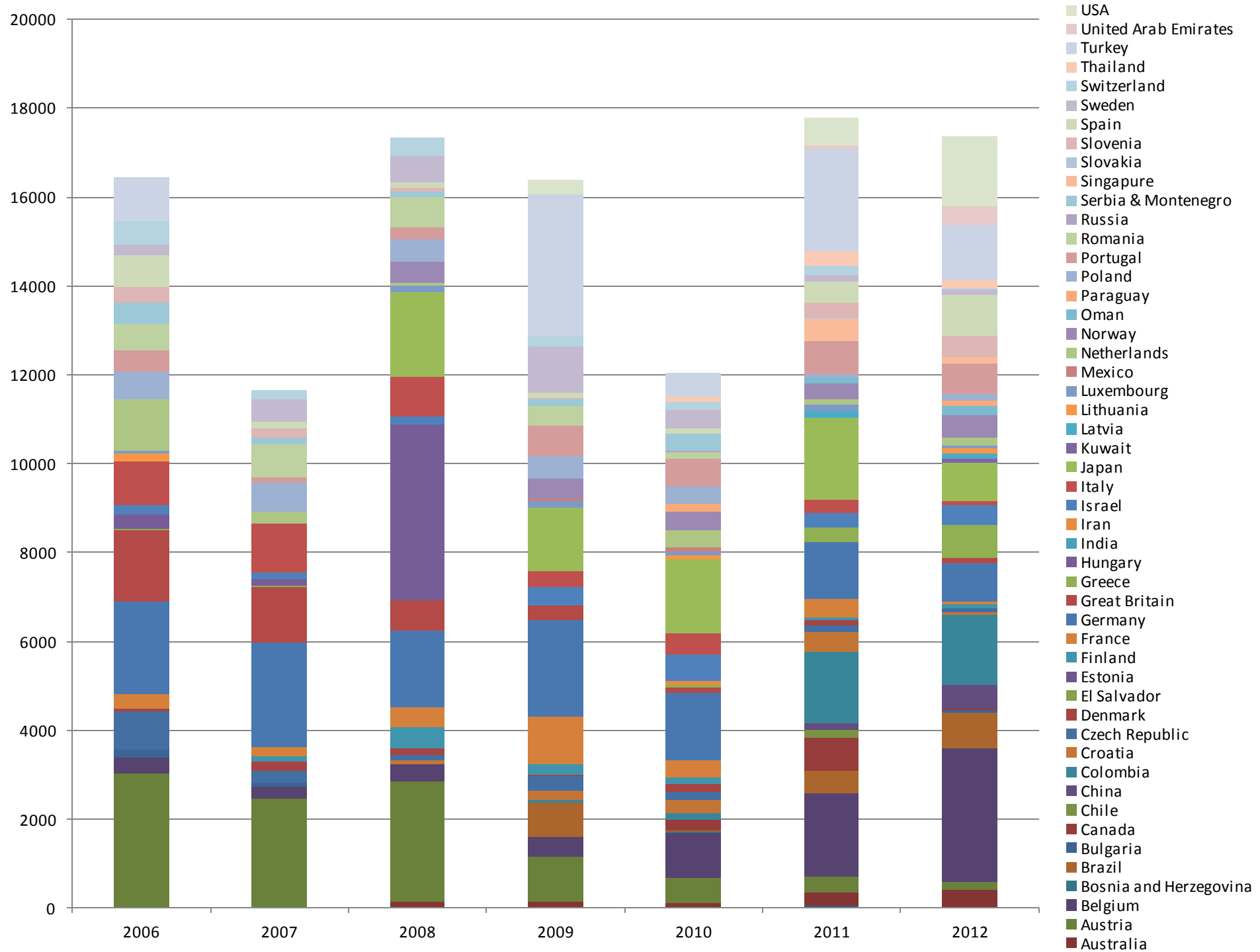
## Results 2007-2011 at unit level (n=658)

	Mean	SD	P5	Median	P95
<b>Unit characteristics</b>					
Mean number of occupied beds	<b>45,8</b>	47,9	12,0	<b>35,0</b>	102,1
Mean number of participants	<b>31,3</b>	27,8	5,0	<b>26,0</b>	71,0
<b>Participant characteristics</b>					
Mean age (years)	<b>78,7</b>	13,0	46,0	<b>82,9</b>	89,9
Females (%)	<b>71,4</b>	22,1	21,4	<b>75,0</b>	100,0
Cognitive impairment (%)	<b>70,0</b>	25,2	19,9	<b>73,6</b>	100,0
Mobility impairment (%)	<b>57,6</b>	27,8	5,5	<b>62,5</b>	100,0
Dysphagia (%)	<b>14,2</b>	16,4	0,0	<b>9,7</b>	47,4
Chewing problems (%)	<b>26,8</b>	24,4	0,0	<b>20,1</b>	80,7
<b>Nutritional status</b>					
Mean BMI (kg/m <sup>2</sup> )	<b>25,0</b>	2,3	21,5	<b>25,0</b>	28,5
MNA: at risk of MN (%) (n=156)	<b>42,6</b>	21,0	10,8	<b>41,7</b>	80,3
MNA: MN (%) (n=156)	<b>16,5</b>	15,0	0,0	<b>12,5</b>	46,2
Weight loss within last year (%)	<b>33,8</b>	18,9	1,7	<b>33,3</b>	62,5
Weight loss > 5 kg within last year (%)	<b>11,8</b>	13,0	0,0	<b>8,3</b>	35,0



## patient recruitment per country (29.08.2013)

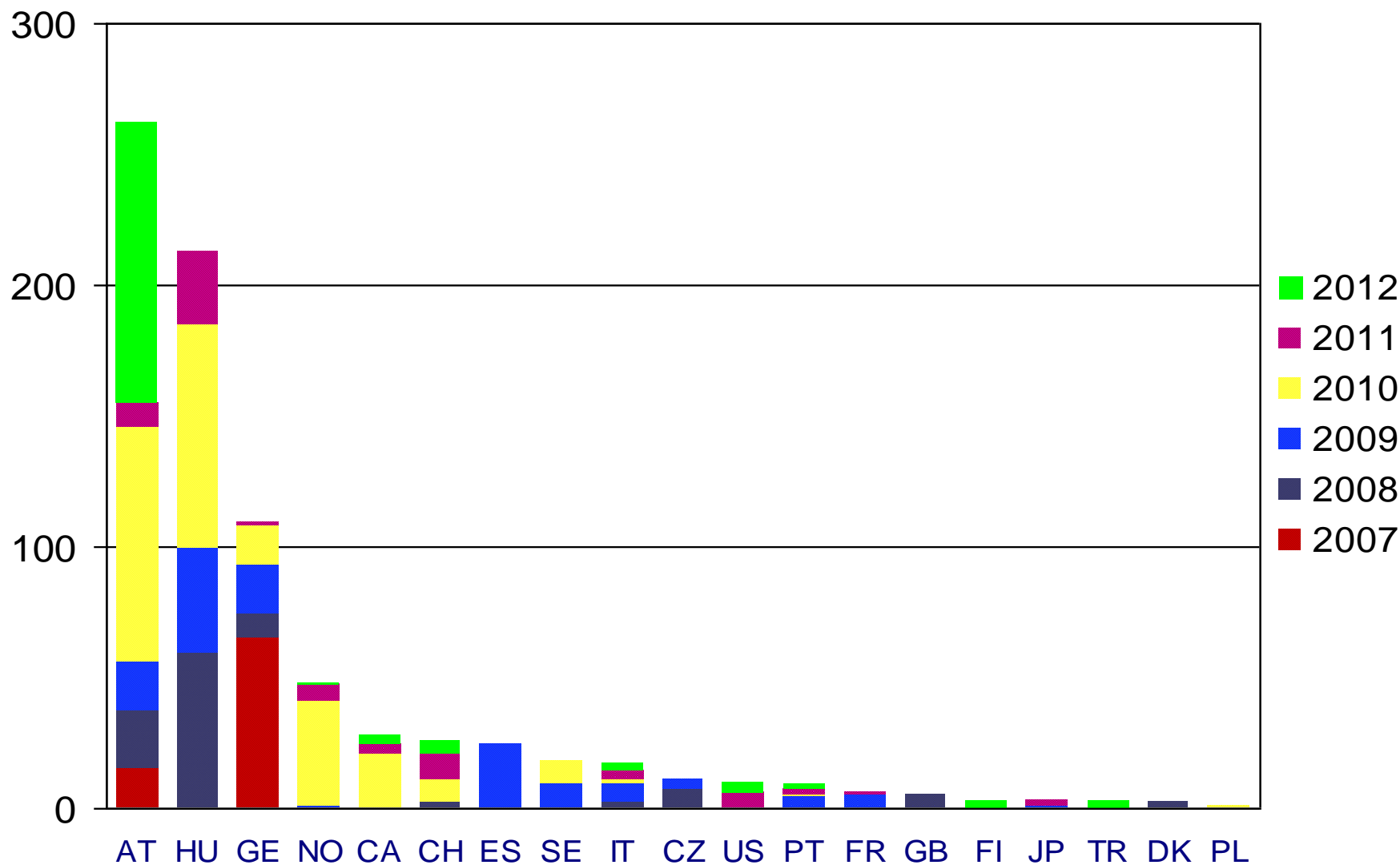




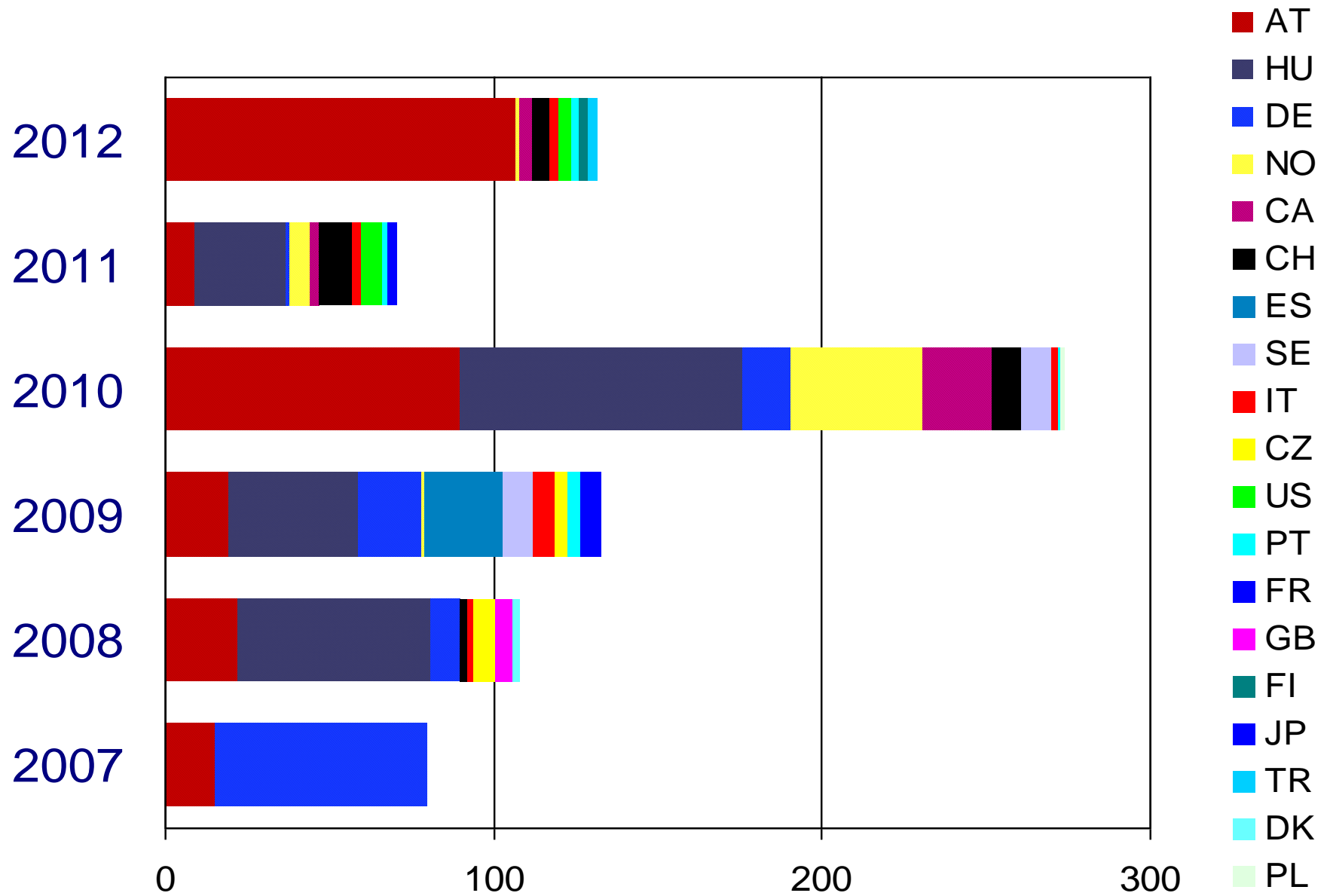
Jahr	Länder	Heime	Wohn- bereiche	Bewohner	
2007	2	40	80	2.067	} 26.237
2008	8	63	108	3.718	
2009	11	105	133	4.924	
2010	10	103	274	8.878	
2011	11	51	71	2.630	
2012	8	102	132	4.020	
		<u>464</u>	<u>798</u>		

**19 Länder** (Dänemark, Deutschland, Finnland, Frankreich, Großbritannien, Italien, [Japan](#), [Kanada](#), Norwegen, Österreich, Polen, Portugal, Schweden, Schweiz, Spanien, Ungarn, [USA](#), Tschechien, Türkei)

# nD in NHs – units per country 2007-2012



## nD in NHs – units per country 2007-2012



## nD in NHs – participants per country 2007-2012

