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Employment in health and long-term care sector in European countries

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Abstract

Health care is an important sector in all European countries showing a high dynamic in the past. In 2011 about 23 million persons were employed in health and social care, that is to say 10.4% of total employment. The share of health care expenditures in GDP was 10%. The health care workforce increased despite the overall trend of declining employment also during the economic crisis. The high dynamic in health care can be explained by demographic changes as well as by other non-demographic drivers. Due to the ageing of the population a further increase in the demand for health workforce is expected.

This paper gives an overview of the health and social workforce in the EU Member States based on the EU labour force survey. It focuses on the current situation and the changes in the last years as well as the differences across the Member States in the three main areas human health care, residential care, and social work.

Key words: employment, European countries, heath care

Słowa kluczowe: Europa, opieka zdrowotna, zatrudnienie

Introduction

Health care is an important sector in all European countries showing a high dynamic in the past. In 2011 some 23 million persons were employed in health and social care, with approximately 5 million new jobs created in human health and social work, accounting for more than a third of the new jobs created in the EU between 2000 and 2011 [1]. The health care workforce increased despite the overall trend of declining employment also during the economic crisis. Between 2008 and 2011 more than 1.5 million (net) new health care jobs were created. The share of health care expenditures in GDP was 10% in 2011.

The high dynamic of the 'health care and social work' sector can be explained not just by demographic changes, but also by other non-demographic drivers. The health care expenditures, as well as the demand for health care services are influenced by the size and age-structure of the population. Both health care expenditure and demand for health services increase with age. The nearness to death is driving the health care cost of an individual, but new medical-technological treatments and methods are also important. The expected societal transition with a combination of population ageing, changing family and household structure as well as increasing female employment will have a significant impact on the economic growth and employment in the health care sector as a whole, and in particular on long-term care services.

Due to an ageing population a further growth of the healthcare sector is expected which is higher than the average economic growth. The European Commission (DG ECFIN) and the Economic Policy Committee (Ageing Working Group – AWG) carried out economic and budgetary projections for the 27 Member States in the field of pensions, health care and long-term care until 2060 [2]. The 2012 Ageing Report assumes an increase in the overall potential growth from 1.2% in 2010 to 1.7% in 2025 and due to higher growth rates in health sector an increase in the share of health care expenditures (as %

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of GDP) from 7.1% in 2010 to 7.6% in 2025 and 8.3% in 2050. For long-term care spending a higher dynamic is proposed due to the ageing of the population and in particular the significant increase in the number of oldest old. The share of long-term care expenditures in GDP is expected to grow from 1.8% (of GDP) in 2010 to 2.2% in 2025 and 3.2% in 2050 (EU 27, AWG reference scenario). As in particular nursing and caring services are labour intensive activities the health and long-term care workforce will raise along with the economic growth. However, the 2012 Ageing Report provides no figures on the development of employees in health and long-term care sector.

This paper gives an overview of the health and social workforce in the EU Member States based on the EU labour force survey[3]. It focuses on the current situation and the changes in the last years as well as the differences across the Member States. In WP12 of the NEUJOBS project five countries are studied: Denmark, Germany, Italy, Poland, and Slovakia.[1] This paper shows also the position of these countries compared to other Member States and the EU27 average.

1. Health and social services workforce

1.1. Increasing share of employees engaged in health and social services

According to the labour force survey, in 2011, 217 million people were employed in the EU27. The number of employees engaged in health and social services (National Account classification of Economy NACE2, sector Q) was some 23 million people, that is to say 10.4% of total employment (**Figure 1**).

The proportion of people employed in health and social services varies widely between the European Countries. Denmark realized the highest share with some 19% and Cyprus the lowest with 4%. Germany has with 12.2% a higher share of health workforce than the EU27 average, whereas Italy (7.4%), Slovakia (6.8%) and in particular Poland (5.7%) show a lower proportion of health workforce.

Between 2008 and 2011 the total employment declined in the EU27 on average and in most of the European countries not at least due to the economic crises. In contrast, the employment in the health and social sector increased by 1.5 million people in the EU27. That is an increase of 7%. Only five countries show also a decline in health workforce: Bulgaria, Cyprus, Latvia, Lithuania and Slovenia (**Figure 2**).

The health and social care sector gain in importance for the overall labor market. The proportion of health workforce in total employment increased in this period by 0.9%-points. A disproportional increase was realized in Ireland (2.5%-points), Spain (1.7%-points), and Portugal (1.8%-points).

The NACE2 (2008) classification allows the separate the health and social service sector (sector Q) into three parts: Q 86 human health care, Q 87 residential care activities, and Q 88 social work activities without accommodation (see appendix). In 2011, at the EU27 average the share of human health activities was 58.5%, the share of residential care 20%, and the share of social work 21.5% (**Figure 3**). The health and long-term care system both

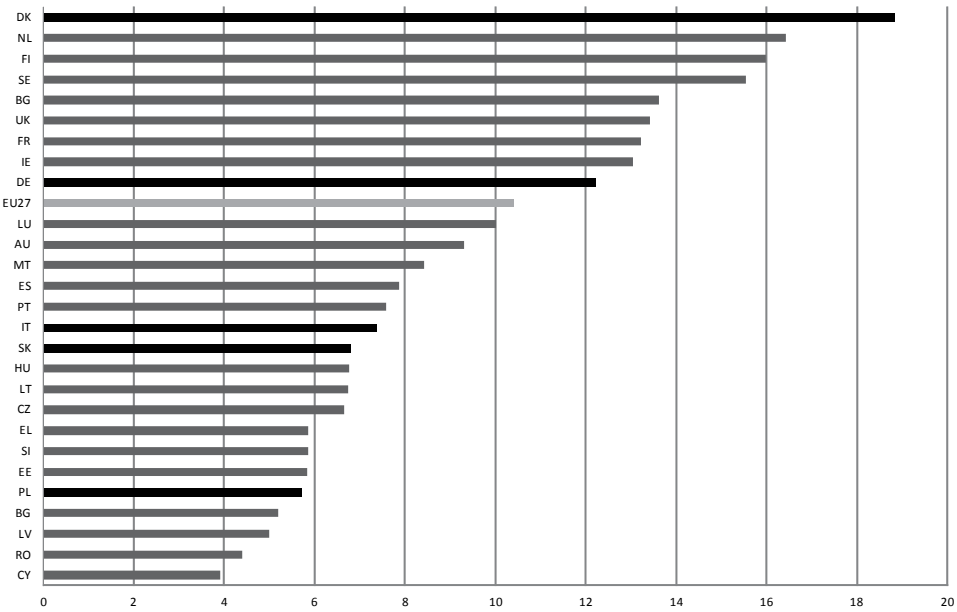

Figure 1. *Health and social service workforce in total employment in EU27 in 2011 (%).*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

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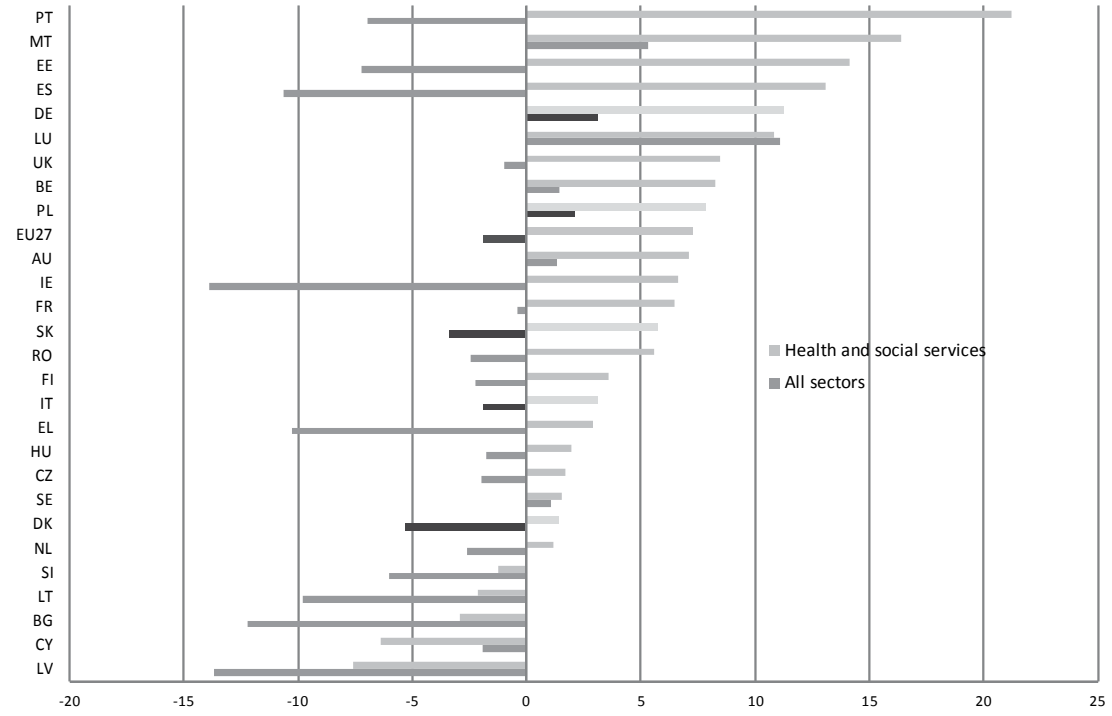

Figure 2. *Changes in employment in total economy and health and social services (sector Q) between 2008 and 2011 in %. Source: Eurostat; labour force survey; calculation of DIW Berlin.*

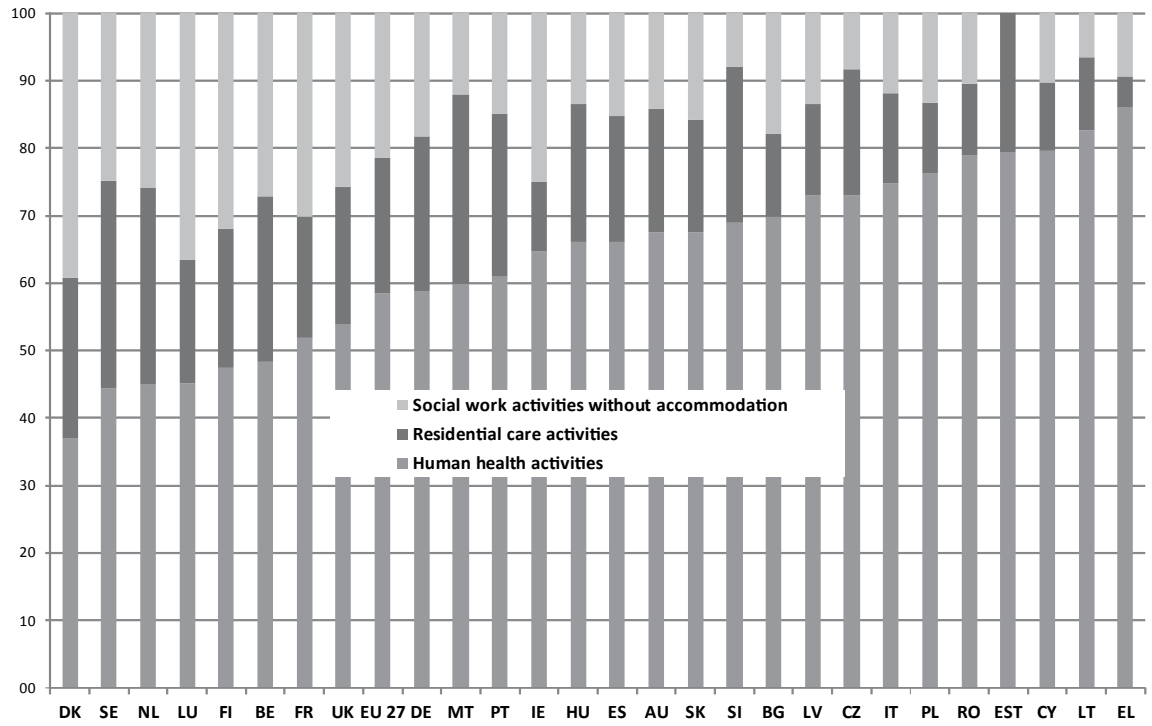

Figure 3. *Proportion of subsectors in health and social service sector in 2011 (NACE2, sector Q, employees). Source: Eurostat; labour force survey; calculation of DIW Berlin.*

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have a significant influence on the share of the subsectors in the single European countries. Denmark with a generous social service system has the highest share of social work activities with approximately 40% as well as a disproportional residential care sector. As opposed to this, Greece has the highest share of human health activities which comprises hospital and ambulatory health care services. In Greece, residential care plays a minor role with a share of 5%. In 2011, only 11,000 people worked in residential care in Greece, related to people aged 75 and older this is a ratio of 1 worker per 100 persons. Elderly people in need for care relay mostly on family care-giver.

Between 2008 and 2011, in the EU27 average all subsectors show an increasing trend (**Table I**). The growth in employment was highest in the residential care sector (16.7%), followed by the social service sector (6.8%) and the human health services (4.5%). Notwithstanding, 12 Member States realized a decline in employment in one of the subsectors and four countries in two subsectors. Cyprus and Lithuania show a decrease in health care as well as in residential care employment. The UK and Slovenia experienced a shrinking workforce in health care and in social services (without accommodation).

A decline in health care employment shows Latvia (–14.7%) and Bulgaria (–7.2%), accompanied by a high increase in residential care (22% each). A decline in residential care experienced Romania, Netherlands, Poland, Denmark, Italy, Sweden and Hungary. A reduction in social work employment realized Czech Republic, Slovakia, and Finland. All other Member States (11) show a growth in employment in all subsectors.

Between 2008 and 2011, in the EU27 average the human health workforce increased by some 570,000 persons, the residential care employment increased by 650,000 and the social work employment by 310,000 (**Table II**). Also Germany realized an increase in employment in all subsectors with the highest increase in residential care, while Poland, Denmark, and Italy lose residential care employment, and Slovakia shows a shrinking social work employment.

	Human health activities	Residential care activities	Social work without accommodation	Health and social care activities	All sectors
Cyprus	–6.40	–21.05	15.38	–6.37	–1.91
Lithuania	–3.78	–2.88	27.66	–2.12	–9.81
Slovenia	–5.74	18.87	–6.38	–1.26	–6.02
United Kingdom	–1.28	77.12	–1.66	8.45	–0.97
Latvia	–14.70	22.22	16.07	–7.62	–13.69
Bulgaria	–7.19	22.08	1.10	–2.91	–12.23
Romania	8.04	–17.76	19.37	5.57	–2.47
Netherlands	10.37	–11.47	2.82	1.18	–2.61
Poland	8.60	–6.68	17.50	7.84	2.09
Denmark	5.91	–6.11	2.25	1.35	–5.26
Italy	4.71	–4.37	2.07	3.10	–1.87
Sweden	1.42	–3.40	8.63	1.52	1.06
Hungary	0.06	–3.13	23.32	1.98	–1.74
Czech Republic	9.69	0.33	–36.77	1.68	–1.97
Slovakia	10.44	14.66	–16.50	5.75	–3.38
Finland	4.69	7.06	–0.32	3.56	–2.26
Greece	2.18	16.67	4.65	2.92	–10.28
Belgium	3.05	17.21	10.64	8.25	1.43
France	3.09	17.91	6.33	6.46	–0.41
Austria	3.30	8.58	26.98	7.09	1.32
EU27	4.52	16.67	6.80	7.24	–1.86
Spain	5.96	22.56	40.84	13.08	–10.63
Germany	6.98	19.47	16.27	11.27	3.10
Ireland	8.39	13.43	0.17	6.64	–13.91
Luxembourg	13.48	10.81	6.49	10.84	11.07
Estonia	16.45	0.00	60.00	14.15	–7.22
Malta	19.72	2.56	41.67	16.39	5.31
Portugal	20.98	35.47	4.37	21.23	–6.94

Table I. *Changes in employment between 2008 and 2011 (in %).*
Source: Eurostat, labour force survey; calculation of DIW Berlin.

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	Human health activities	Residential care activities	Social work without accommodation	Health and social care activities	All sectors
United Kingdom	–27	349	–17	304	–286
Bulgaria	–8	3	0	–5	–411
Latvia	–6	1	1	–4	–154
Lithuania	–3	0	1	–2	–149
Slovenia	–2	2	0	–1	–60
Cyprus	–1	0	0	–1	–7
Hungary	0	–2	7	5	–68
Luxembourg	1	0	0	2	22
Malta	1	0	1	2	9
Estonia	4	0	1	4	–47
Greece	4	2	1	7	–469
Sweden	5	–8	14	11	49
Austria	8	6	12	26	54
Finland	8	5	0	14	–57
Belgium	9	22	16	47	63
Slovakia	10	3	–5	9	–82
Denmark	11	–8	4	7	–150
Ireland	12	3	0	15	–292
Czech Republic	21	0	–16	5	–99
Romania	24	–9	7	21	–231
Portugal	39	23	2	64	–361
France	53	92	61	207	–107
Spain	53	49	63	165	–2153
Poland	56	–7	18	67	331
Italy	57	–10	4	51	–438
Netherlands	58	–52	10	16	–224
Germany	186	181	125	492	1196
EU27	572	646	310	1528	–4122

Table II. *Changes in employment between 2008 and 2011 (in 1000 persons).*
Source: Eurostat, labour force survey; calculation of DIW Berlin.

The changes in the importance of the subsectors, measured as changes in the share of the subsectors in total employment, show **Table III**. In the EU27 average, the health care employment realized the highest gain, followed by residential care. In Denmark and Italy was the gain in employment also highest in human health, whereas Germany had the highest gain in residential care. Poland and Slovakia experienced a gain in human health employment, but not in the other caring areas together.

1.2. Health workforce is predominantly female

Traditionally health and social care workers are predominantly women. In 2011, at the EU27 average 18 million out of 23 million employees in health and social services are women, that is to say 78% of the total health workforce. The share of female employment is higher in residential care (81%) and in social work activities (83%) as in in human health services (75%). In contrast, the share of female employment in total economy was only 45% (**Table IV**).

Nursing and personal care activities are still the tasks of females, in families, and also in the formal labor market. 18% of the total female workforce is engaged in health and social care activities; thereof 10% in health activities, 4% in residential care, and 4% in social work activities (**Table V**). In contrast, only 4% of the total male workforce is engaged in health and social work, thereof with the majority working in health services (some 3%).

The economic crises had a higher influence on male than on female employment. Between 2008 and 2011, the total male employment declined by 3.2% while the female employment declined only by 0.2% (EU27). In contrast to the overall employment trends, both the male and female employment increased in the health sector.

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	Human health activities	Residential care activities	Social work without accommodation	Health and social care activities	All sectors
EU27	0.4	0.3	0.2	0.9	0.0
Belgium	0.1	0.4	0.3	0.9	0.0
Bulgaria	0.2	0.2	0.1	0.5	0.0
Czech Republic	0.5	0.0	–0.3	0.2	0.0
Denmark	0.7	0.0	0.5	1.2	0.0
Germany	0.3	0.4	0.3	0.9	0.0
Estonia	0.9	0.1	0.1	1.1	0.0
Ireland	1.7	0.3	0.5	2.5	0.0
Greece	0.6	0.1	0.1	0.8	0.0
Spain	0.8	0.4	0.4	1.7	0.0
France	0.2	0.4	0.3	0.9	0.0
Italy	0.3	0.0	0.0	0.4	0.0
Cyprus	–0.1	–0.1	0.1	–0.2	0.0
Latvia	0.0	0.2	0.2	0.3	0.0
Lithuania	0.3	0.1	0.1	0.5	0.0
Luxembourg	0.1	0.0	–0.2	0.0	0.0
Hungary	0.1	0.0	0.2	0.2	0.0
Malta	0.6	–0.1	0.3	0.8	0.0
Netherlands	0.9	–0.5	0.2	0.6	0.0
Austria	0.1	0.1	0.3	0.5	0.0
Poland	0.3	–0.1	0.1	0.3	0.0
Portugal	1.1	0.6	0.1	1.8	0.0
Romania	0.3	–0.1	0.1	0.3	0.0
Slovenia	0.0	0.3	0.0	0.3	0.0
Slovakia	0.6	0.2	–0.2	0.6	0.0
Finland	0.5	0.3	0.1	0.9	0.0
Sweden	0.0	–0.2	0.3	0.1	0.0
United Kingdom	0.0	1.2	0.0	1.2	0.0

Table III. *Changes in the share of health and social services in total employment between 2008 and 2011 in %-points. Source: Eurostat; labour force survey; calculation of DIW Berlin.*

The male health workforce increased by some 390,000 persons that is to say by 8.5%. The female health workforce increased also (by 1.1 million), but the increase was with 7% lower. As a consequence, the share of male employment increased, in particular in health activities as well as in social work.

Not all EU countries could realize an increase in male and female employment in health and social activities with a higher increase of male employment. Two countries, Latvia and Bulgaria, experienced a decline in both female employment and male employment. In Lithuania the female employment declined, while the male employment increased (**Figure 4**). Five Member States realized an increase in female employment and a decline in male employment (Cyprus, Slovenia, Luxembourg, Netherlands, and Slovakia).

Between 2008 and 2011, the share of female employment increased by 0.74 %-points in total economy, but declined by 0.25 %-points in health and social services. Only the residential care activities show also an increase in female employment (0.24 %-points) which was lower than the increase in total economy.

In the five countries studied in WP12 (Denmark, Germany, Italy, Poland, Slovakia), a shift to a higher proportion of female employment in the total economy can be seen, but the picture is different in the health care sector (**Table VI**). Only Slovakia realized an increase in the share of female employment in all three subsectors, Germany show an increase in two subsectors (with a decline in social work), and Poland, Italy and Denmark realized a decline in the proportion of female employment in two subsectors each.

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GEO/NACE_R2	Human health activities	Residential care activities	Social work without accommodation	Health and social care activities	All sectors
Finland	85.07	87.30	90.25	87.18	48.34
Lithuania	87.02	88.12	85.00	87.01	51.36
Latvia	82.77	86.36	93.85	84.74	50.69
Estonia	83.64	87.14	–	84.37	50.52
Slovakia	80.44	87.22	90.91	83.23	44.28
Netherlands	76.41	86.39	90.87	83.06	46.24
Slovenia	80.42	88.10	79.55	82.12	45.94
Sweden	79.74	86.47	80.59	82.02	47.36
Poland	80.84	77.39	90.48	81.76	44.88
Czech Republic	79.91	87.19	81.85	81.43	43.02
Ireland	77.97	84.49	88.47	81.27	46.57
Bulgaria	79.57	82.98	85.09	80.98	47.91
Denmark	80.39	83.13	80.07	80.92	47.42
Portugal	75.19	88.04	91.26	80.69	46.77
France	73.72	79.32	86.73	78.66	47.48
United Kingdom	77.28	79.49	79.75	78.37	46.43
Romania	77.24	78.64	85.68	78.27	45.00
European Union 27	75.25	81.12	82.75	78.04	45.46
Hungary	72.80	84.79	91.98	77.84	46.03
Belgium	73.08	82.39	81.67	77.69	45.40
Austria	75.88	93.22	76.56	77.32	46.24
Spain	72.17	85.95	88.18	77.17	44.81
Germany	77.90	76.37	73.76	76.79	46.14
Luxembourg	70.30	87.80	78.05	76.34	43.37
Cyprus	70.09	93.33	93.33	74.83	45.29
Italy	63.05	84.42	85.78	68.59	40.70
Greece	60.07	86.61	91.56	64.26	40.32
Malta	48.24	70.00	70.00	56.97	34.58

Table IV. *Share of female employees in total employment and in health and social work activities 2011.*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

	Employees 2011			Share in total			Changes between 2008 and 2011					
	In 1000 persons			in %			In 1000 persons			in %		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
All sectors	217 182	118 452	98 730	100	100	100	–4 122	–3 890	–232	–1.9	–3.2	–0.2
Health and social care activities	22 639	4 972	17 668	10.4	4.2	17.9	1 528	388	1 141	7.2	8.5	6.9
Human health activities	13 243	3 277	9 966	6.1	2.8	10.1	572	197	376	4.5	6.4	3.9
Residential care activities	4 521	853	3 667	2.1	0.7	3.7	646	113	533	16.7	15.2	17.0
Social work without accomodation	4 876	841	4 035	2.2	0.7	4.1	310	79	232	6.8	10.3	6.1

Table V. *Employees by sex and sectors in EU27 in 2011 and changes between 2008 and 2011.*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

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NACE2 (2008)	Human health activities	Residential care activities	Social work activities without accomodaction	Health and social work activities	All sectors
Cyprus	7.69	9.12	8.72	7.27	0.73
Luxembourg	0.63	4.02	14.41	6.05	0.44
Slovenia	1.87	3.19	5.08	2.66	0.44
Bulgaria	0.52	0.51	3.84	1.22	1.26
Slovakia	0.10	3.60	4.44	1.10	0.31
Malta	–2.47	11.03	–16.18	2.01	1.41
Netherlands	2.09	2.63	–0.52	1.27	0.66
Spain	–1.10	–0.64	2.76	0.13	2.67
Germany	0.12	0.86	–0.51	0.11	0.71
Hungary	–1.80	0.44	5.05	–0.23	0.44
Latvia	–3.50	8.59	8.13	–0.78	1.59
Greece	–2.70	9.52	0.39	–1.66	1.19
Czech Republic	–0.30	2.02	–1.52	–0.09	0.25
Poland	–0.25	–2.87	2.33	–0.10	0.05
Austria	–0.24	0.52	–1.35	–0.17	0.57
United Kingdom	–0.26	0.69	–0.89	–0.21	0.37
EU27	–0.43	0.24	–0.55	–0.25	0.74
Romania	0.23	–1.86	–2.35	–0.26	0.04
France	–0.90	0.64	–0.09	–0.32	0.28
Belgium	–0.50	–1.72	0.22	–0.33	0.75
Italy	–0.67	2.96	–4.24	–0.83	0.79
Lithuania	–1.12	2.54	–4.36	–0.91	1.93
Denmark	0.09	–0.26	–3.03	–1.23	0.60
Portugal	–3.34	–3.40	0.76	–2.70	0.59
Sveden	–1.45	–1.33	–0.88	–1.37	0.09
Ireland	–1.85	–2.08	–0.15	–1.51	2.76
Finland	–2.48	–2.37	–1.45	–2.19	0.29
Estonia	–8.13	–1.43	–37.50	–6.53	0.92

Table VI. *Changes in the share of female employees between 2008 and 2011 (%-points).*
Source: Eurostat; labour force survey; calculation of DIW Berlin

1.3. Health workforce is older than the average

In general, the health workforce is older than the workforce in total. One third of workers in health and social care are at least 50 years old. These employees will exit the labour market over the next 15 years. The retiring workforce ultimately must be replaced by younger individuals who enter the health care labour market. As the general population's replacement rate is only 66%, it is increasingly challenging to replace retiring workers as the total workforce also declines in size.

The share of young workforce aged between 25 and 39 years is with 36% significant higher in the total economy as in health and social work (33%). In particular in residential care activities is the share of young worker with 31% lower than in the total economy and also lower than in health and social work sector (**Figure 5**).

In some European countries the share of elderly workforce is significant higher. In 2011 in Latvia, Cyprus, Bulgaria and Estonia was the share of elderly in sector Q higher than 40% (**Table VII**). Also Denmark, Slovakia, Italy, and Poland have a share of elderly employment in health and social care which is higher than the EU27 average. In Denmark, Slovakia and Italy is one out of three employees at least 50 years old, in Poland is the share a little bit lower (31.8%). That means, in these countries around one third of health and social work employees have to be replaced during the coming 15 years. Only Germany has a slightly younger health and social care workforce compared to the EU27 average.

In the subsectors, is the share of elderly employment highest in residential care in Denmark and Slovakia, and highest in human health care in Italy and Poland.

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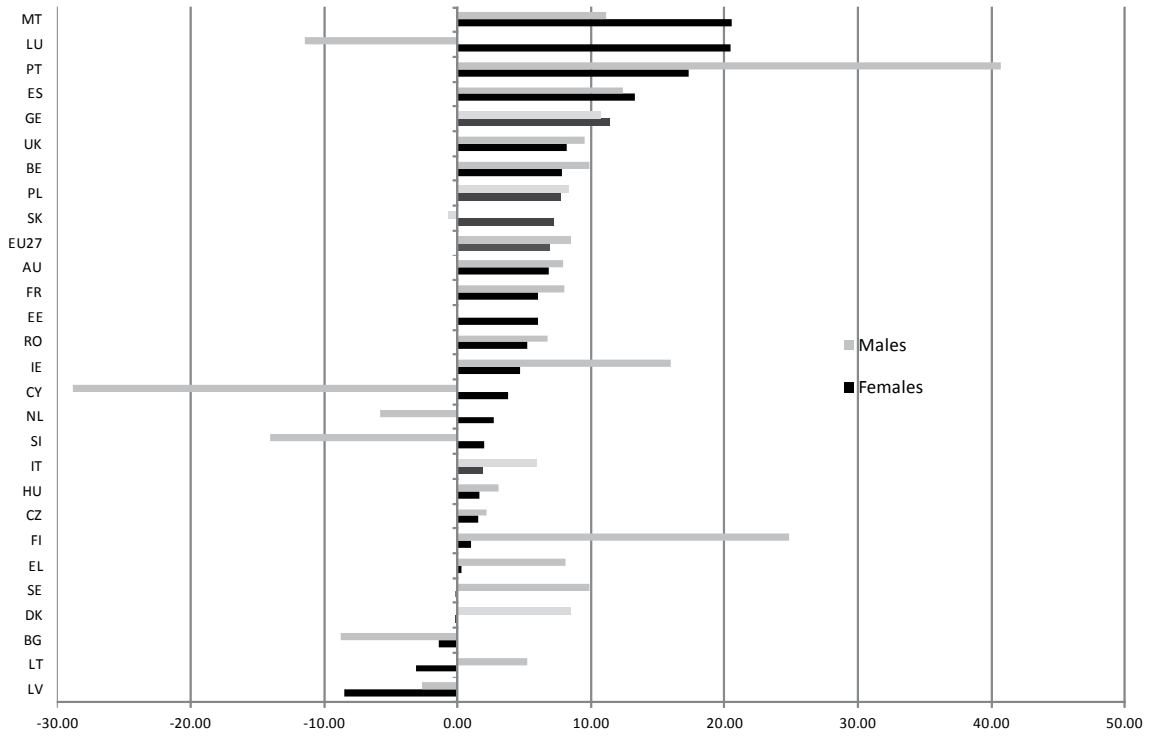

Figure 4. *Changes in employment in health and social activities by sex between 2008 and 2011 (%).*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

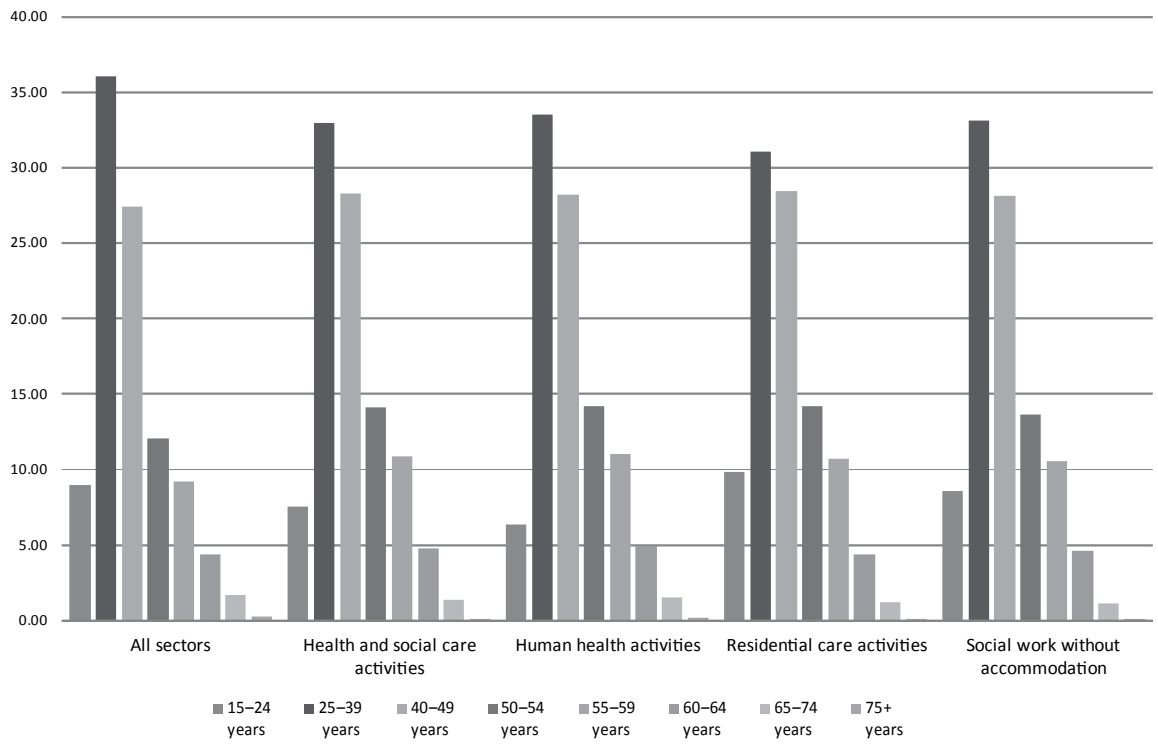

Figure 5. *Age-structure of employees by sectors in the EU27 in 2011 (%).*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

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GEO/NACE_R2	Human health activities	Residential care activities	Social work activities without accomodaction	All health and social work activities	All sectors
Latvia	45.48	46.97	33.85	44.12	28.44
Cyprus	41.03	66.67	20.00	41.50	27.40
Bulgaria	42.44	36.70	36.73	40.72	26.30
Estonia	42.01	37.14	18.75	40.00	30.72
Lithuania	39.45	35.64	28.33	38.31	28.57
Finland	39.25	35.16	34.58	36.93	32.24
Sweden	41.17	35.98	29.36	36.64	31.72
Denmark	36.56	37.53	28.99	33.83	28.89
Hungary	34.94	32.32	28.94	33.59	26.43
Slovakia	32.81	37.59	32.41	33.58	25.59
Italy	37.26	25.29	19.26	33.52	26.80
Czech Republic	33.32	31.20	32.96	32.84	27.45
United Kingdom	32.94	32.18	31.03	32.29	28.37
Poland	32.64	29.05	28.97	31.78	25.72
Spain	33.37	28.52	27.49	31.57	24.71
EU27	31.86	30.65	30.15	31.25	27.56
Ireland	29.97	33.06	33.73	31.23	25.49
Netherlands	30.36	30.86	31.01	30.67	27.56
France	30.24	29.82	31.77	30.63	26.64
Germany	29.07	30.90	32.34	30.09	30.39
Greece	27.46	32.14	21.33	27.08	27.24
Belgium	29.68	25.45	23.86	27.06	25.42
Malta	21.18	40.00	23.53	26.76	22.66
Portugal	26.69	24.72	24.59	25.93	29.11
Slovenia	27.78	19.84	22.73	25.55	23.85
Romania	23.46	24.41	25.06	23.72	26.27
Austria	23.47	22.14	19.41	22.65	23.87
Luxembourg	25.74	21.95	18.29	22.22	22.73

Table VII. *Share of elderly workers (50+) in sectorial employment 2011.*
Source: Eurostat; labour force survey; calculation of DIW Berlin

A successful replacement of this high share of health workforce retiring depends on the size of the total workforce, which is expected to decline in the next decades. But also on the budgetary constraints, which most of the Member States experience as well as on the attractiveness of working places in health and social care in particular in respect of wages and working conditions.

1.4. High share of part-time employment

Share of part-time employment in general higher in health and social services than in total economy. In 2011, in total economy some 20% are working part-time in the EU27, in health and social services 32% (**Figure 6**). The share of part-time employment is higher in health and social work as in the total economy in the majority of countries. However, some countries show a contrary result. In particular in Romania and Portugal is the share of part-time employment in health and social work significant lower than in the country average.

In several countries part-time work is not common. In 2011, in Bulgaria only 2% of the total workforce was working part-time; in Slovakia, Czech Republic, Greece, and Hungary was the share of part-time employment lower than 7%. In contrast, in the Netherlands 49% of employees were working part-time. The unusual high share of part-time employment in the Netherlands can be explained by measures undertaken in the 1970th. Due to economic crises in the late 1970th with high unemployment rates, employers and unions came to an agreement regarding measures to increase the employment rate in the Netherlands (Treaty of Wassenaar 1982). The agreement which was supported by the government had the objective to bring more people

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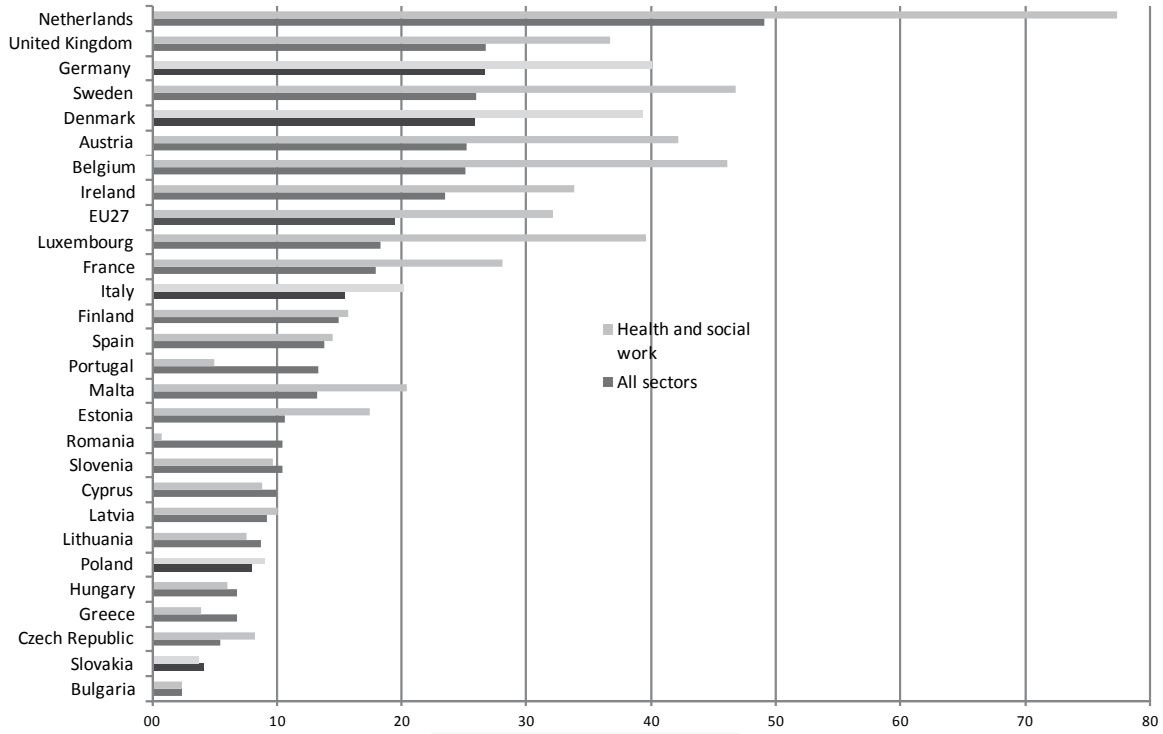

Figure 6. *Share of part-time employment in health and social work and total economy 2011 (%).*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

into a job respectively to give more people the chance to stay in their job. One measure was the reduction of working time, in particular the increase in part-time employment [4]. This measure was successful and since that time has the Netherlands the highest share of part-time employment in Europe.

Germany (27%) and Denmark (26%) have also shares of part-time employment above the EU27 average (19.5%), in Italy the part-time employment is lower (15.5%) than the EU27 average, but in particular Poland (8%) and Slovakia (4%) have low shares of part-time employment.

Part-time employment is more common among women than men. In the majority of countries are men still the main breadwinner of a household/family. Women are still the main person responsible for caring the children and/or older family members. The reconciliation of family and work is a challenge and often females decide to work part-time to combine family tasks and work. In the EU27 average in total economy 9% of males, but one third of females are working part-time.

In health and social work is the proportion of male (15%) and o female part-time employment (37%) higher than in the total economy (**Figure 7**). Shares of female part-time employment in health and social work well above the EU27 average (32%) are realized in the Netherlands (85%), in Belgium (55%), in Sweden (50%), in Austria, and in Luxembourg (49% each).

Part-time employment is dominated by women, in particular in health and social work with a general higher share of female employment. The share of female part-time employment in total part-time employment ranges from some 70% in Portugal to 95% in Luxembourg. Also Slovakia realized with 93% a high share of females in part-time employment, Germany, Italy and Denmark show shares between 89% and 87%, followed by Poland with 86%.

The economic crises with a decline in total employment lead in general to a shift to part-time work in the EU27. Between 2008 and 2011, the full-time jobs experienced a significant decline by some 6.2 million, while the part-time employment increased by 2 million (**Table VIII**). The shift to part-time employment was higher for men than for women. The share of part-time employment in total male employment increased at 1.2%-points.

Between 2008 and 2011, in the health and social work sector the increase in part-time employment was higher than the increase in full-time employment. As a consequence the share of part-time employment increased at 0.7%-points for females and 1.1%-points for males (EU27 average). Thus, the importance of male part-time work increased also in health and social work.

In 2011, at the EU27 average in total economy the average usually weekly working hours in full-time jobs were 41.6 hours. The working hours in full-time jobs ranges between 43.6 hours in Austria and 38.9 hours in

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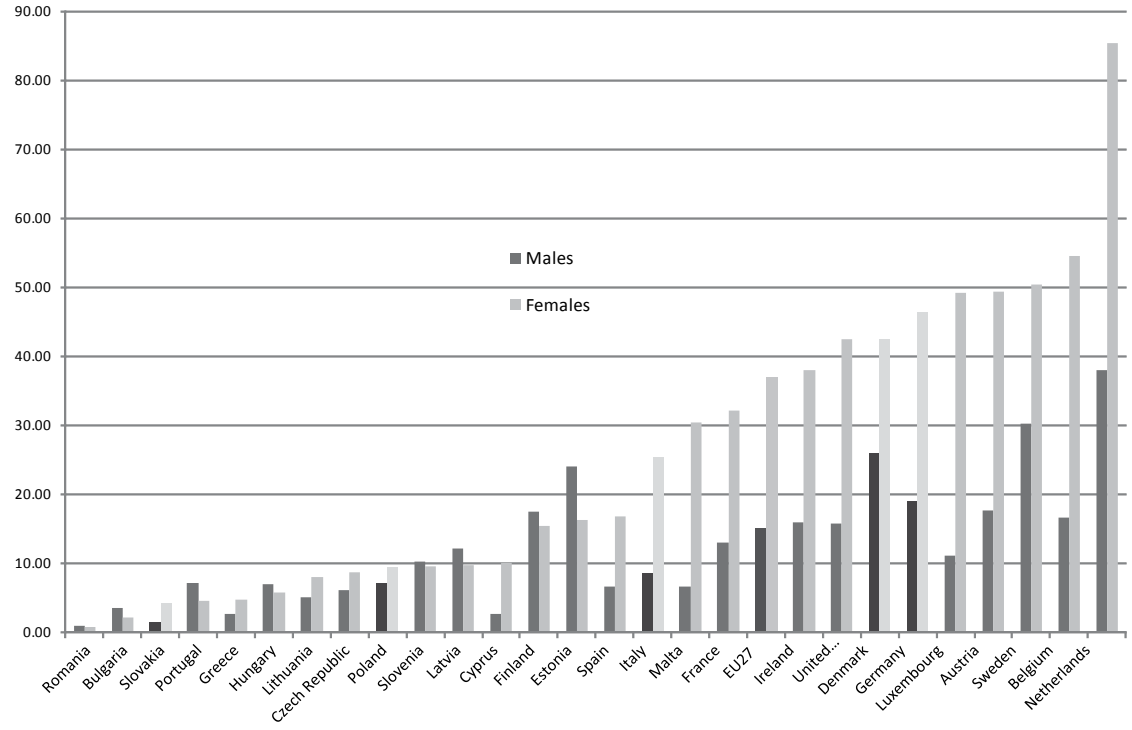

Figure 7. *Share of part-time employment in health and social work by sex in 2011 (%).*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

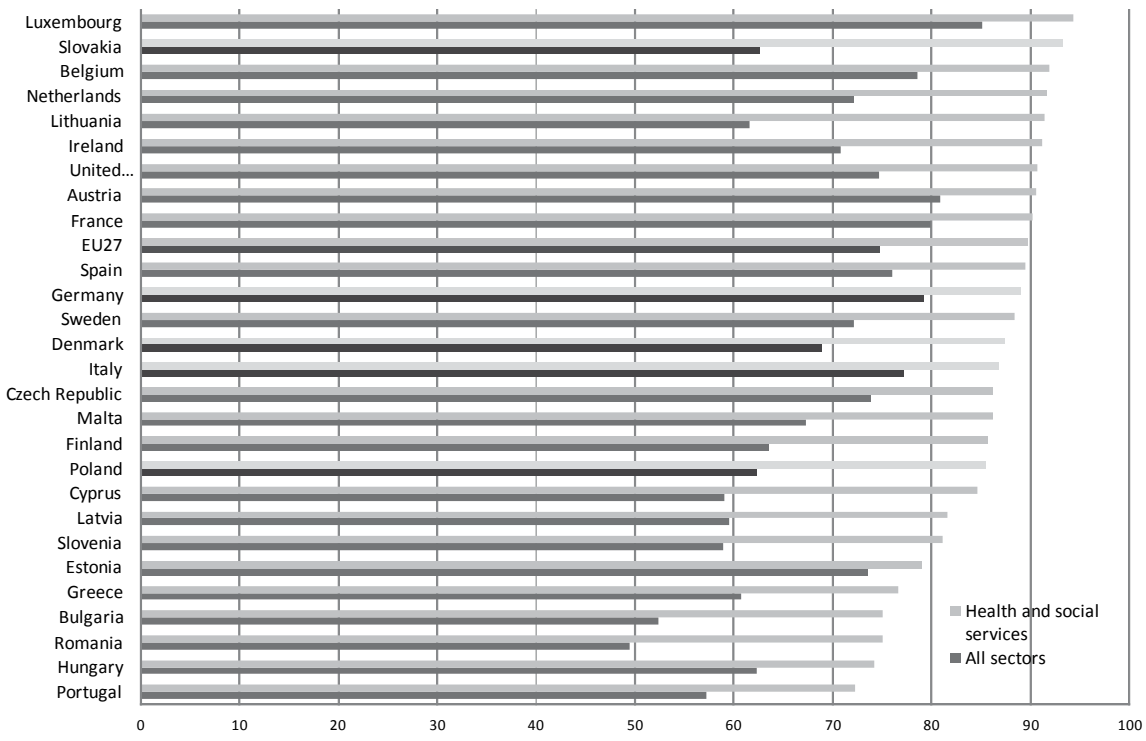

Figure 8. *Share of female part-time employment in part-time employment 2011 (%).*
Source: Eurostat; labour force survey; calculation of DIW Berlin.

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	Changes in employees (in 1000)			Changes in %		
	Total	Males	Females	Total	Males	Females
All sectors						
total	–4122	–3890	–232	–1.9	–3.2	–0.2
full time	–6146	–4968	–1178	–3.4	–4.4	–1.7
Part-time	2010	1070	940	5.0	11.2	3.1
Changes in the share of part-time (%-points)	1.3	1.2	1.0			
Health and social care						
total	1528	388	1141	7.2	8.5	6.9
full-time	889	279	610	6.1	7.1	5.8
part-time	639	109	530	9.6	17.0	8.9
Changes in the share of part-time (% points)	0.7	1.1	0.7			

Table VIII. *Changes in full-time and part-time employment in EU27 between 2008 and 2011.*
Source: Eurostat; labour force survey; calculation of DIW Berlin

Denmark. In the EU27 in total economy the average usually working hours in part-time employment was 19.9 hours. The working hours in part-time work range between 16.6 hours in Portugal and 23.9 hours in Sweden.

In health and social work is the average working time for full-time workers lower than in total economy; 40 hours at EU27 average, ranging from 42.4 in Austria to 37.7 hours in Denmark, Ireland, and Italy. Employees in health and social work sector with a part-time contract are working longer as in total economy on average. In the EU27 on average the working time for part-time employees in health and social work was 22 hours, ranging from 27.2 hours in Sweden to 18.1 hours in Portugal (**Figure 9**).

The difference in working hours across part-time workers was in particular high in Denmark. In 2011, on average, part-time employees worked 18.6 hours per week, but people employed in in health and social services worked 5.8 hours longer. A similar situation shows Slovakia: people working part-time in health and social services had on average a 3.7 hours longer working time than the average part-time worker. In Germany was the difference with 2.2 hours lower, Italy show with 0.6 hours only a small difference and in Poland was the working time in health care a little bit lower than the average working time of part-time workers in total.

1.5. Occupations

Since 2010, Eurostat, OECD and WHO have jointly collected data on health resources, namely health employment, beds and high-tech medical equipment [5]. They provide statistics on physicians, general practitioner, specialists, dentists, pharmacists, physiotherapists (number and per 100000 population) as well as nursing and caring professionals. The health workforce is not differentiated by facilities or sub-sectors. An exception is the personnel in hospitals. Unfortunately the definition of "health personnel" is inconsistent across all countries.

In 2010 some 1.7 million physician are practising or active in Europe. The supply of medical care by physicians varies widely across EU States. Greece had the highest density of practising physicians (6.1 physicians per 1000 population) and Poland the lowest with 2.2 physicians per 1000 population (**Figure 10**). The medical care by physicians is above the EU27 average in Italy (3.9), Germany (3.7) and Denmark (3.3), whereas Slovakia was at the EU27 average, with 3.3 physicians per 1000 population.

In the EU27, no general standard of a sufficient health care provision exist. However, the ratio of inhabitants per health professional is used as an indicator showing the situation of health care provision across EU States. Eurostat provide the ratio of inhabitants per physician providing in primary care services (mostly General Practitioners – GPs), the ratio of inhabitants per specialists, and the ratio of inhabitants per dentists. As generalists act as gatekeepers, the primary care provision by GPs is essential for the access the secondary care. A high ratio of inhabitants per GP is an indicator for high workloads of GPs, resulting in time pressures of GPs and may lead to long waiting times in practices. In the EU27, on average 295 inhabitants are cared for by one physician, but 834 inhabitants by one generalist (including not further defined) and 476 by one specialist. There are huge differences in the supply of generalists across the Member States. In Slovakia, 2480 inhabitants are cared for by one generalist, but in Denmark only 488. On the other hand, Slovakia has a high share of specialist medical practitioners, thus the number of persons cared for by a specialist is, at 391, lower than the EU27 average. Poland shows a similar situation with 2183 people cared for by one generalist and 581 per specialist. Poland has the lowest density of physicians: on

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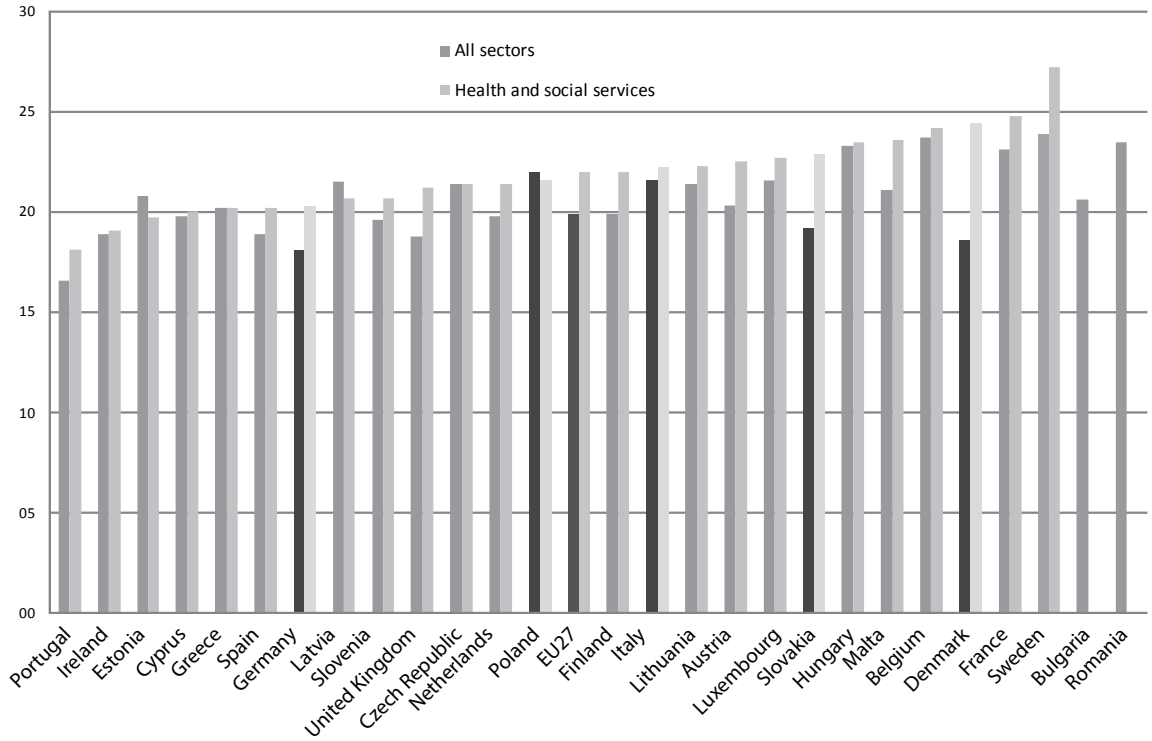
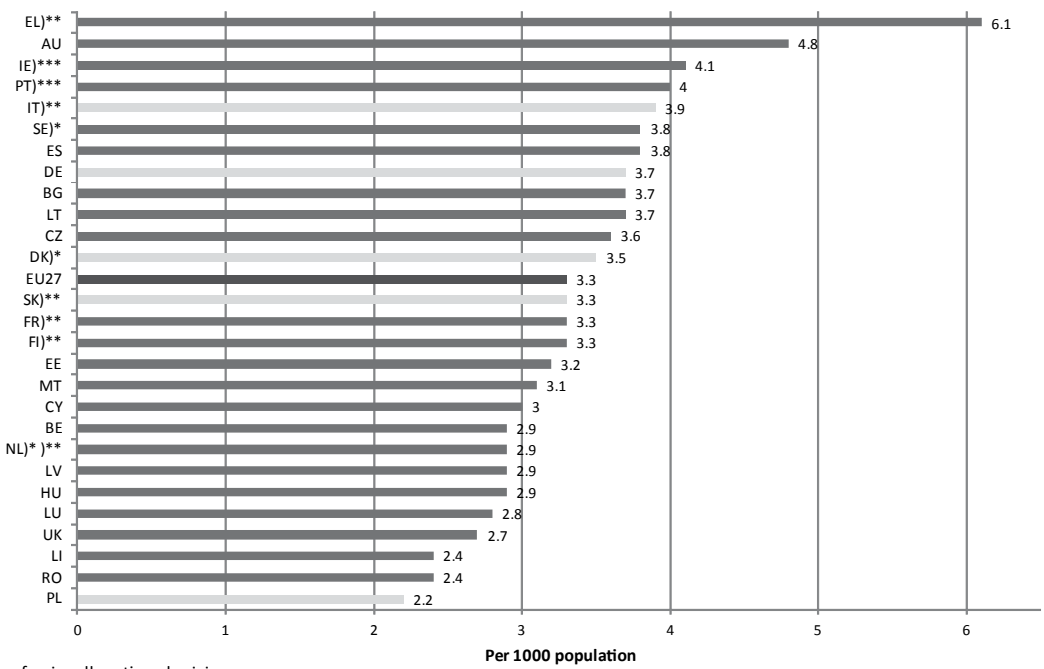


Figure 9. *Average number of usually weekly working hours in part-time employment 2011.*
Source: Eurostat; labour force survey; calculation of DIW Berlin.



*) professionally active physicians
**) data for 2009
***) estimation of practising physicians = generalist medical practitioners + specialist medical practitioners

Figure 10. *Practising physicians or doctors per 1000 inhabitants in 2010.*
Source: Eurostat; health personnel statistics; calculation of DIW Berlin.

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average 459 persons came of one physician. Italy, Denmark and Germany have in general a higher medical care supply. The number of people who have to be cared for by a generalist accounts for 639 in Germany and 1063 in Italy, for specialists are the relations 701 (Denmark), 462 (Germany) and 367 (Italy) (**Figure 11**).

Figure 12 and **Figure 13** show the same facts, but as doctors per 1000 population. The position of the five studied countries among the European Member States can be easily seen. In the case of generalist show Germany and Denmark a higher medical care supply as the EU average, and the other three countries a lower supply. In the case of specialist show Poland and Denmark a better situation compared to the EU average and Germany, Italy and Slovakia a less favourable situation.

Information on non-medical staff in health and social work is only available for the number of nurses per 1000 population. The ratio ranges from 16.8 in Luxembourg to 3.5 in Greece (**Figure 14**). In particular Denmark has a high ratio of nurses with 15.8, followed by Germany with 11.5. In Italy, Slovakia and Poland the ratio was about 6 nurses per 1000 population; significantly smaller. Nurses are active in acute health care, in particular in hospitals, as well as in long-term care. Denmark has a generous provision of personal care and help with household chores by so called community nurses. Since the introduction of the long-term care insurance law in 1995 Germany has a relatively high and increasing provision of long-term care by ambulatory care services and in institutions. In Germany, a significant percentage of nurses, in particular geriatric nurses are employed in long-term care. In Italy, Slovakia and Poland long-term care provision does not have such a prominent role. This partly explains the difference to countries like Germany and Denmark.

Summary

The employment in health care and social work is characterized by:

- A high dynamic in the past and an increase in employment despite the overall decline during the economic crisis.
- A high share of female employment.
- A high share of elderly employment.
- A high share of part-time employment.

In 2011, in the five countries studied in WP12, Denmark, Germany, Italy, Poland, and Slovakia 8.1 million people were employed in health and social work, that is to say 36% of the total health workforce. The share of health workforce in total employment ranges from 18.8% in Denmark to 5.7% in Poland. The share of female employment in health employment is higher than the EU27 average (78%) in Denmark, Poland, and Slovakia, while

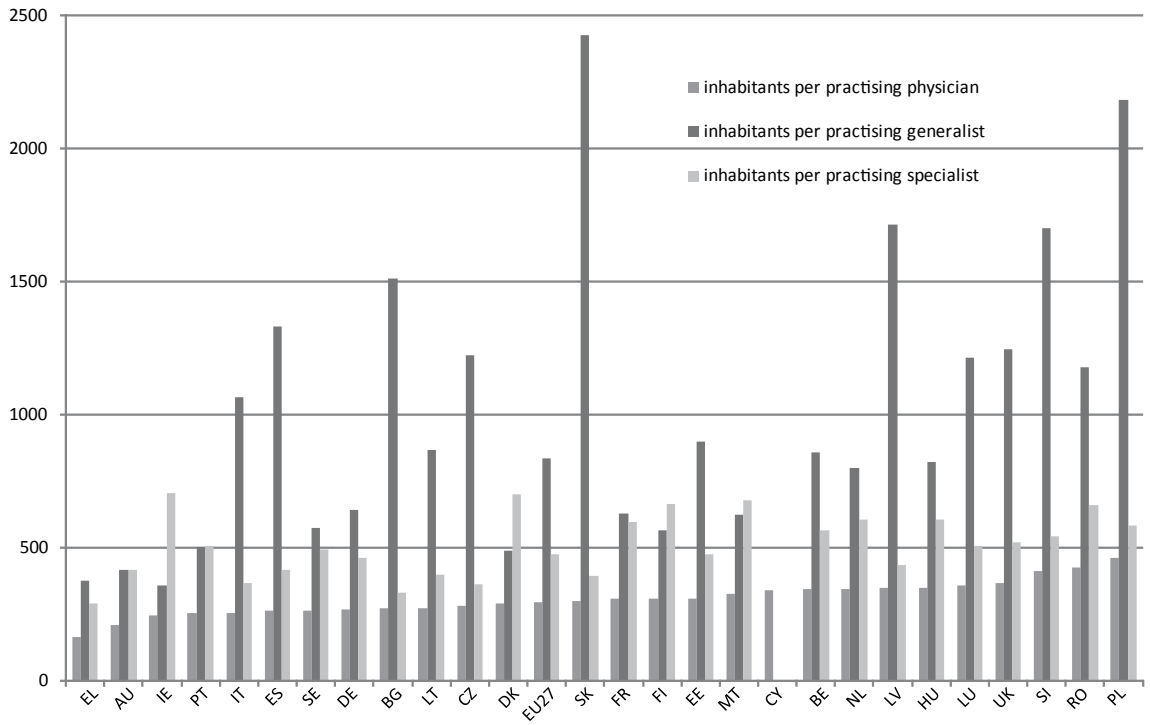

Figure 11. *Population per physician, generalist (incl. no further defined) and specialist in 2010.*
Source: Eurostat; health personnel statistics, calculation by DIW Berlin.

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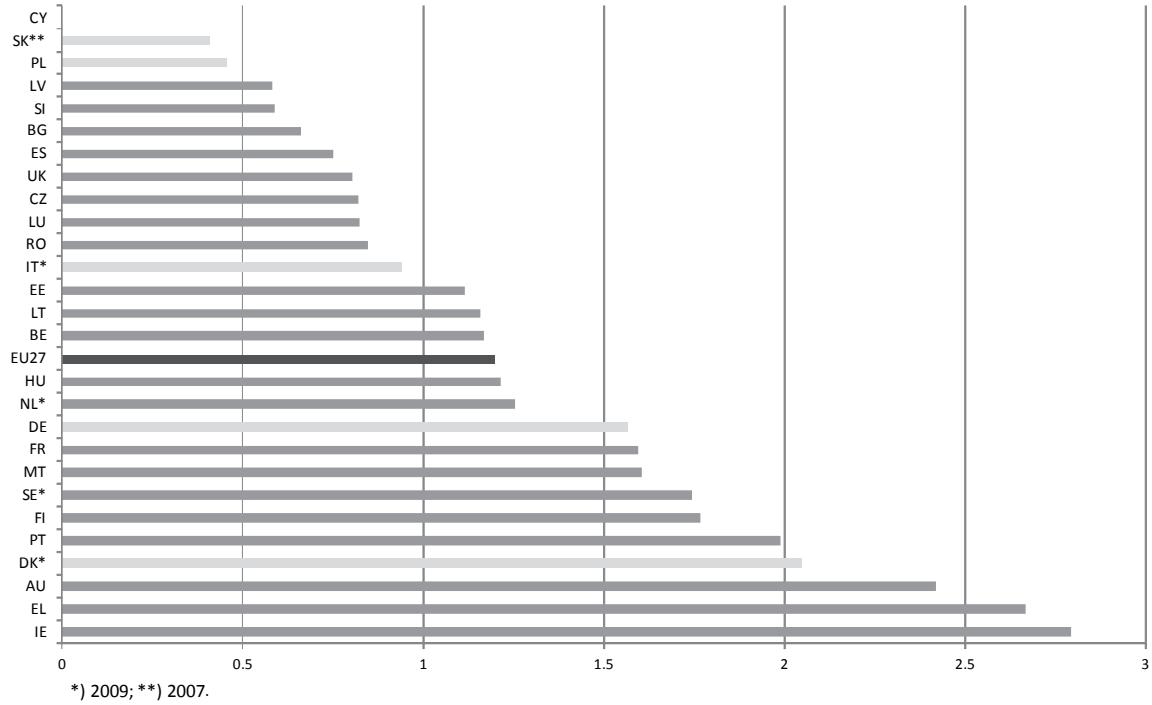

Figure 12. *Generalist medical practitioner and physicians not further defined per 1000 inhabitants 2010.*
Source: Eurostat; health personnel statistics; calculation of DIW Berlin.

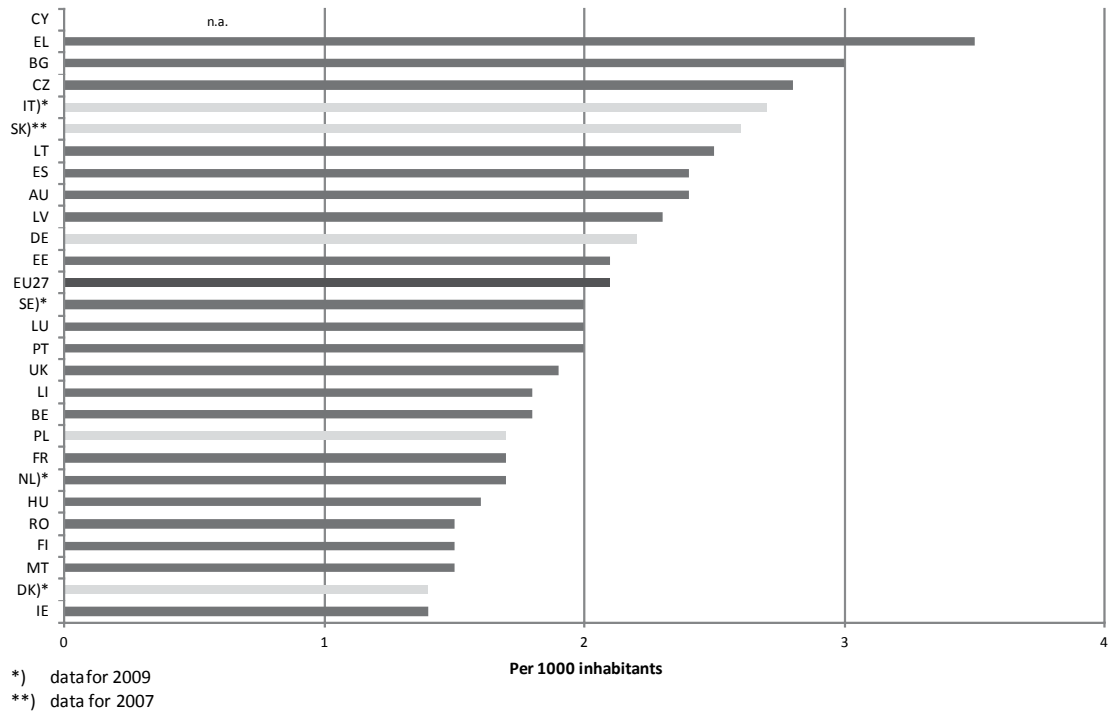

Figure 13. *Specialist medical practitioner per 1000 inhabitants 2010.*
Source: Eurostat; health personnel statistics; calculation of DIW Berlin.

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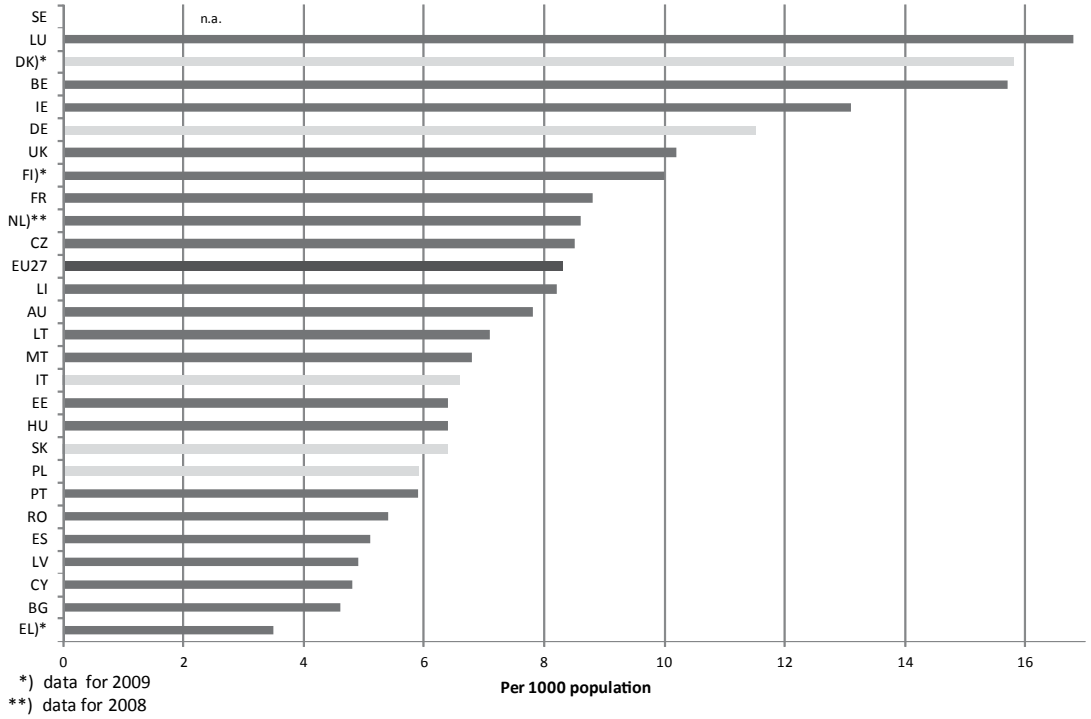

Figure 14. *Nurses per 1000 inhabitants in 2010.*
Source: WHO, European Health for All Database; calculation of DIW Berlin.

Italy shows a disproportional low share of female employment due to a low share in human health care. In general, female employment is characterized by a high share of part-time employment. In the EU27 on average, in health care and social services is the share of part-time employment again higher than in total economy. However, in Italy (20%), Poland (9%) and Slovakia (4%) is the share of part-time employment in health care well below the EU average (32%). About one third of health workforce is at least 50 years old. It can be expected, that in the five studied countries 2.5 million health workers will leave the labour market during the next 15 years.

Notes

[1] The NEUJOBS project is financed under the European Commission Seventh Framework Programme. Work-package 12 has the aim to show the impact of societal change on the health care workforce and on goods and services for the elderly. For more information see www.neujobs.eu.

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Appendix

Statistical Classification of economic activities at 2 and 3 digits National Account Classification of Economy (NACE Rev. 2 – to be used from 2008 onwards)

SECTION Q – HUMAN HEALTH AND SOCIAL WORK ACTIVITIES

86 Human health activities
86.1 Hospital activities
86.2 Medical and dental practice activities
86.9 Other human health activities
87 Residential care activities

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87.1 Residential nursing care activities
87.2 Residential care activities for mental retardation, mental health and substance abuse
87.3 Residential care activities for the elderly and disabled
87.9 Other residential care activities
88 Social work activities without accommodation
88.1 Social work activities without accommodation for the elderly and disabled
88.9 Other social work activities without accommodation

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