GERMAN HEALTH INTERVIEW AND EXAMINATION SURVEY FOR ADULTS (DEGS 2008-2011)

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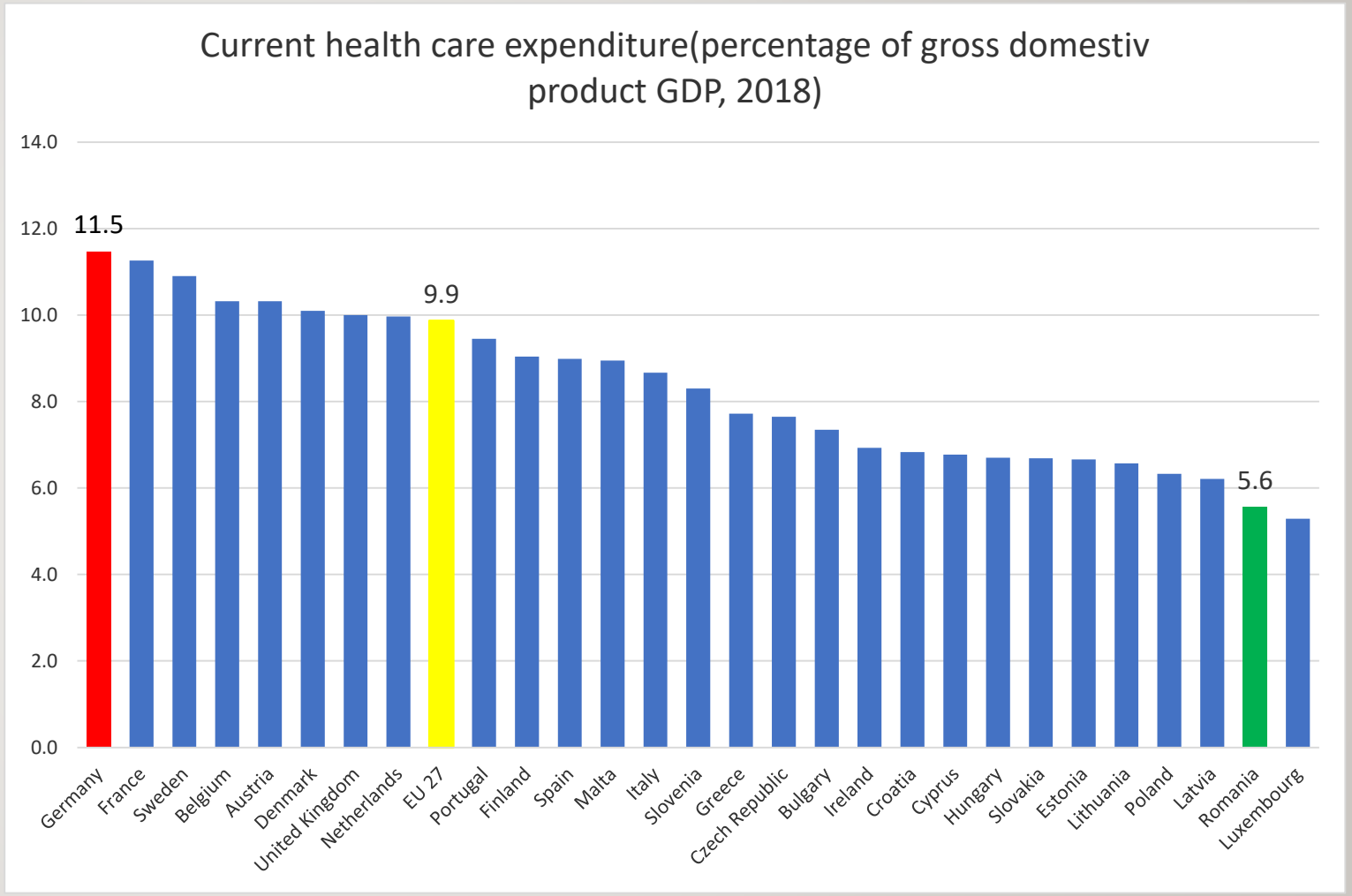
PDP1 "STRENGTHENING THE NATIONAL NETWORK OF PRIMARY HEALTH CARE PROVIDERS TO IMPROVE THE HEALTH OF THE POPULATION, CHILDREN AND ADULTS (INCLUDING VULNERABLE POPULATION)"

SUMMARY:

- The German health insurance system. Some health indicators
- Can the DEGS survey be a good practice model for Romania?
- Overview of the DEGS survey in Germany
- Research instruments/tools
- DEGS: infrastructure, management and data collection
- Conclusions

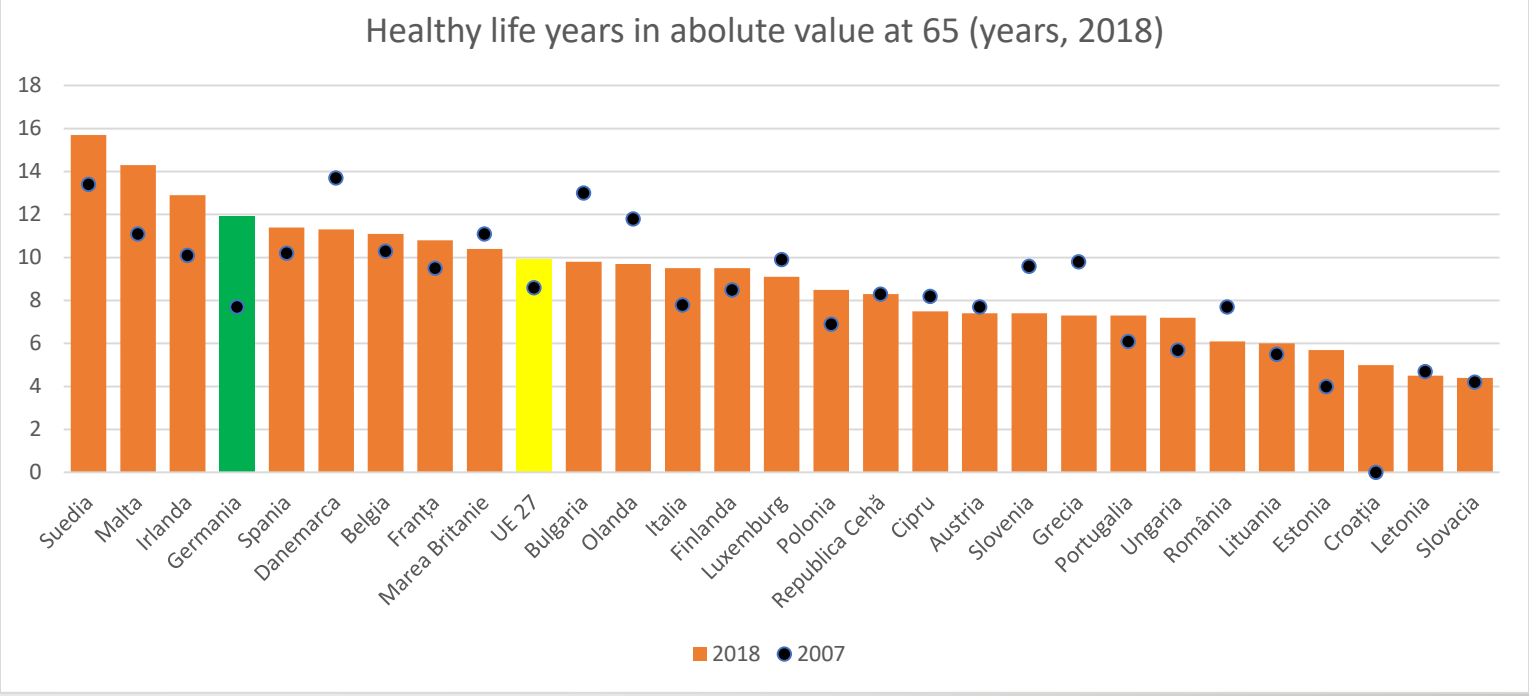
THE GERMAN HEALTH INSURANCE SYSTEM. SOME HEALTH INDICATORS

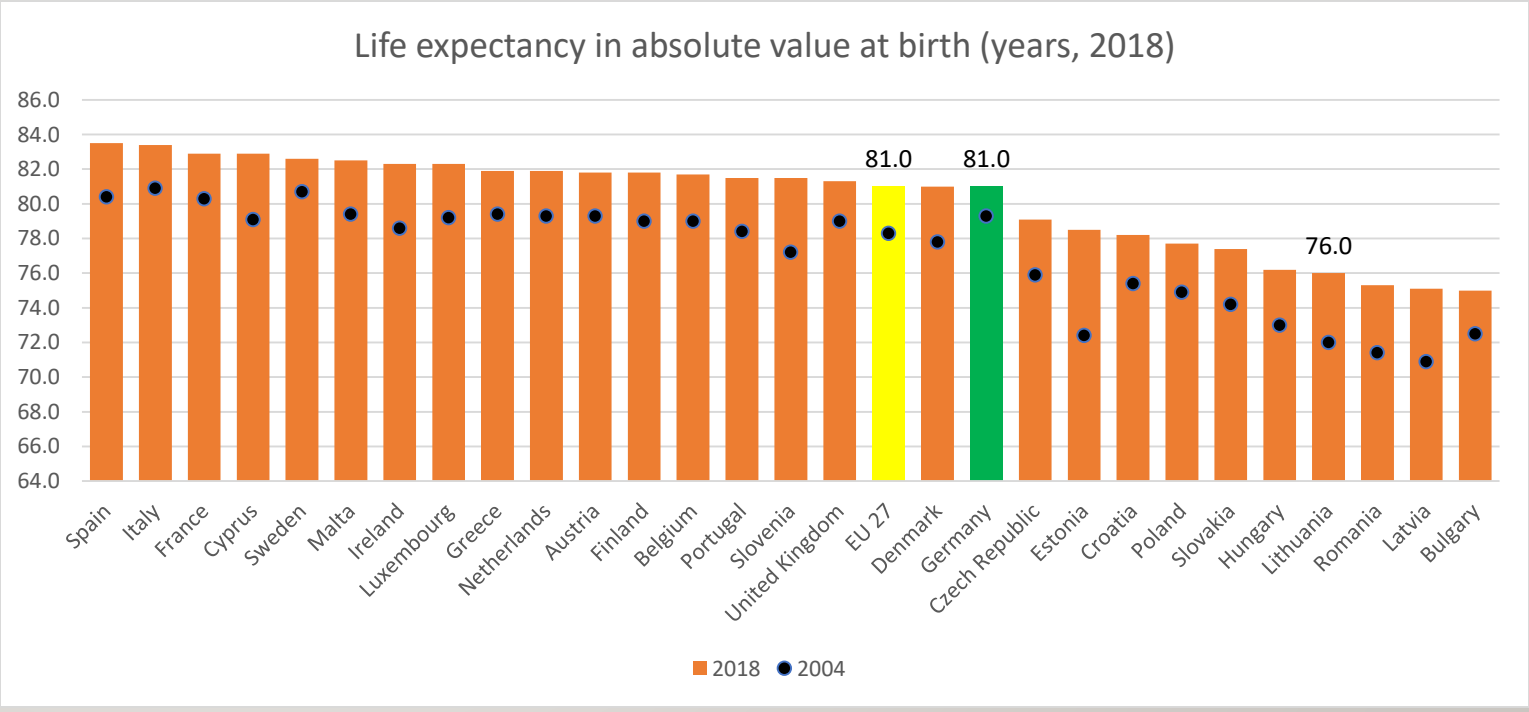
- The health insurance system is a contributory one focused on 2 pillars: public and private
- The majority of the population (87%) contributes to the public system and 11% to the private system
- Certain occupational categories (police force, military) may opt for a separate HIS system
- 85% of medical services are paid from HIS and 12.5% individual payments
- The highest health care spending in the EU



SOME HEALTH INDICATORS

- Life expectancy at birth increased by almost 2 years in Germany between 2004 and 2018 (from 79.3 to 81 years)
- Germany has the best results in increasing healthy life expectancy for people over 65 years
- Between 2007 and 2018, healthy life expectancy for people over 65 years increased by 4.2 years, more than three times higher than the EU average of 1.3 years





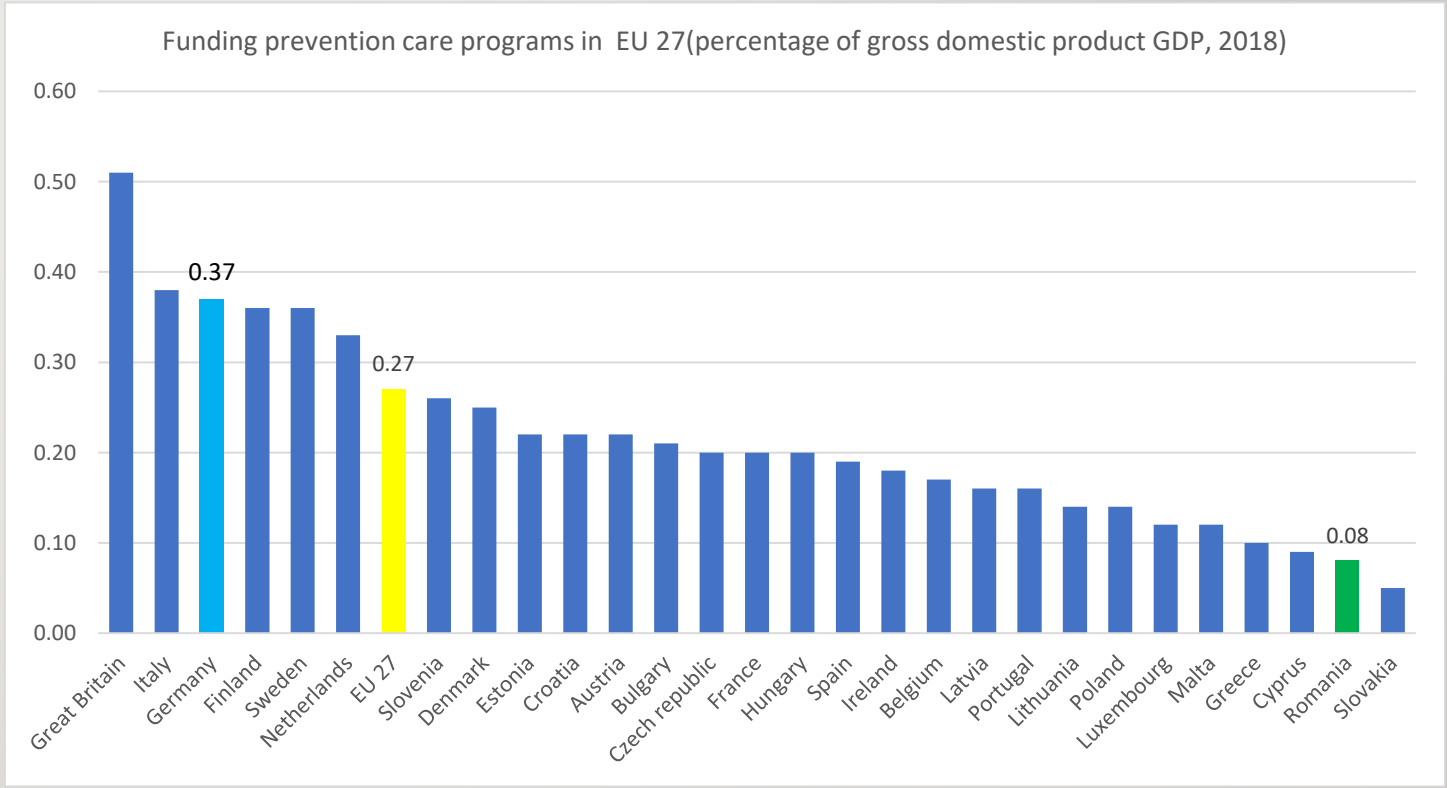
INCIDENCE OF DEATHS DUE TO NON-COMMUNICABLE DISEASES

- Deaths caused by tumors or heart-related diseases account for 38.5% of all deaths in Germany
- Smoking, alcohol consumption and obesity remain the main risk factors that contribute to increased mortality rates.
- One in five adults smoke daily, with an increase in women's tobacco use (with one in six women reporting daily tobacco use). One in three German adults has excessive alcohol consumption, a value exceeded only by Denmark, Romania, Luxembourg and Finland (OECD 2019)
- Among the highest expenditures for health prevention

Causes of deaths per 100,000 inhabitants

Tumors	271	267	266	261	260	262	257
Diabetes	29	29	29	26	28	25	27
Hearth disease	160	158	156	143	147	137	139
Strokes	75	72	71	65	65	62	61
Chronic liver disease	17	16	16	15	16	16	16

Sursă: Eurostat [tps00152]



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- Germany has implemented three national HES surveys (1984, 1998 and 2008-2011). 2020-2021 ??
- This latest survey was the result of joint action by several EU states in an attempt to standardize the application of EHES across the EU.
- Germany has implemented both EHIS and EHES simultaneously (Die erste Welle der Studie zur Gesundheit Erwachsener in Deutschland or DEGS)
- Replacement of previous data collection methods with standardized ones according to EHES procedures

TARGET POPULATION AND SAMPLING

- Nationally representative sample for the adult population aged 18-79 years
- Longitudinal data (panel data) through repeated examination of a significant part of the participants in the previous GNHIES98 study (1998) to which a new sample extracted from the population registers was added, to replace the persons participating in the GNHIES98 study who did not accept the invitation for DEGS
- Out of all the territorial administrative units of Germany, 180 sampling units were selected. The previous 120 sampling points from GNHIES98 were retained and supplemented with 60 new sampling units
- Previous sample - 11.008, New sample - 6.402
- Eligible persons - 15,974 were eligible
- The final number of participants in the survey was 7,238, which means a participation rate of 45.3%.

RECRUITMENT OF PARTICIPANTS

- Letter to persons recruited to participate in the survey
- The letter was accompanied by a brochure presenting the study containing the methods of data collection, their use and ensuring the protection of the data collected.
- Persons who did not respond to the letter of invitation were contacted by a field operator 1-2 weeks before the examination period.
- The contacting of the potential participants from this last category took place initially by telephone and if the number was not available, the address was visited (with at least three attempts at three different times of the day).

PARTICIPATION RATE IN DEGS

- The participation rate for the questionnaire-based survey was higher than for the other examination stages
- Blood sampling had the lowest participation rate
- Females responded more to the questionnaire survey and extraction of blood samples (overrepresentation of males)
- Participation by age groups - increases with age - overrepresentation of young people in the sample

Number of people in the sample		Share of respondents to the questionnaire-based survey		Share of people who accepted the collection of anthropometric data		Share of people who agreed to have their blood pressure taken		Share of persons who accepted the taking of biological samples (from blood)	
Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
3,289	3,683	50	54	48	47	48	47	41	44

Source: Mindell, J. et al (2015)

Country	Survey	Year	Number in sample		Interviewed (%)		Weight measured (%)		Blood pressure measured (%)		Blood sample taken (%)	
			Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Germany	DEGS	2008-2011										
25-34 years			431	501	36	43	36	38	36	38	32	34
35-44 years			583	681	44	53	43	44	43	44	37	44
45-54 years			775	899	52	60	50	49	50	49	42	50
55-64 years			684	756	56	58	54	49	54	49	45	46
65-74 years			816	843	58	55	56	51	56	51	48	43
35-64 years			2042	2336	51	57	49	48	49	48	41	47

Source: Mindell, J. et al (2015)

RESEARCH INSTRUMENTS USED

- Medical examination, blood sampling and a self-administered and administered questionnaire
- The CAPI questionnaire included questions on diseases, diagnosis, specific use of health services, medicines and food supplements, vaccinations and screening examinations.
- Dietary information was obtained using a questionnaire developed and validated by RKI and related to food consumption in the last 4 weeks.
- Additional questions - Diet and alcohol consumption, injuries, living environment, mood, pain, sleep habits / problems, social support, use of medications, vision and hearing

MEASUREMENTS PERFORMED

- Physical tests (height, weight, hip and waist circumference)
- Blood pressure
- Bicycle ergometry (for participants aged 18 to 64)
- Testing physical and cognitive abilities for participants over the age of 64: "up & go" test, chair lift test, balance tests.
- Thyroid volume ultrasound
- Blood and urine tests.

MANAGEMENT OF THE DEGS SURVEY

- The survey was applied by two mobile teams from the RKI
- Study teams used small vans to carry all the equipment needed for exams and interviews. These include measuring instruments such as bicycle ergometers, blood pressure monitors, laboratory equipment, refrigerators, notebooks, furniture, office equipment, and blood sampling and storage equipment.
- They transported the equipment by truck to the location where the examination took place
- At the end of each examination week, they reloaded the vans and drove either to the next study location or back to the RKI in Berlin.
- The two research teams were each made up of a doctor, a nurse or a physician's assistant, a medical technology assistant and a research assistant, recruited to perform field work.

MANAGEMENT OF DATA COLLECTION

- Two days of examination with morning and afternoon meetings and two with afternoon and evening meetings
- Appointments were also available until early Saturday afternoon to facilitate the participation of persons with full time jobs.
- The fieldwork involved two doctors trained to conduct medical telephone interviews in accordance with the field operations manual, taking into account the special requirements applicable to CATI.
- Participants' identification numbers were encrypted in the form of barcodes and printed on adhesive labels to be attached on documents and evidence containers. A barcode scanner was used to verify the identity of the participants as they were subjected to each test and all materials carefully assigned to them.

THE "BENEFITS" FOR THE PARTICIPANTS

- Informing participants about the results of the examination
- Informing participants about the potential need for treatment
- Financial incentive for each participant

CONCLUSIONS

- Implementation of DEGS1 by RKI - experience in research based on medical examinations on children and adults
- Panel data - a complex operation for locating former GNHIES98 participants
- Use of mixed recruitment methods - invitation, phone calls, personal visits
- Close cooperation between field teams and coordinators through permanent contact, field visits to ensure data quality
- Low participation rates, differences by age groups
- Compliance with the EHES standardization protocol but also additional measurements and questions according to Germany's own public policy priorities

THANK YOU!

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