cervical cancer, and death) was developed. Thirty cervical screening strategies were investigated, including the American College of Obstetricians and Gynecologists' recommendation: screening women every 2 years starting at age 21 years, increasing to 3 years following three consecutive negative tests after age 29 (denoted “2/1-3”). Other ages) had an initial screening age (16, 18, 25, or 25 years) and screening frequency before and after age 30 years (every 1, 2, 3, 4, or 5 years). Vaccination was assumed to provide 95% efficacy against CIN2 due to types 16/18 and 37.4% efficacy against CIN2, excluding co-infections due to HPV types 16/18 (extrapolated to efficacy against infection). The primary outcome was incremental cost-effectiveness ratio (ICER) per quality-adjusted life-year (QALY) gained. Full screening compliance and vaccination coverage were assumed; all outcomes discounted at 3% per year.

RESULTS: The 25/5–SNV strategy (every 5 years starting at age 23 years, without vaccination) had the lowest cost. No screening scenario without vaccination was cost-effective. The 25/5–SNV strategy was cost-effective compared with the 25/5–SNV strategy ($9,000/QALY). Other non-dominated strategies (25/3–4V, 25/3–2V, and 25/3–2V) produced ICERs above $100,000 per QALY. CONCLUSIONS: Model results suggest vaccinating at age 19 with a 5-year frequency in the presence of HPV vaccination is cost-effective compared with increasing screening frequency without vaccination or lowering the age of screening initiation. Increasing HPV vaccination in 12-year-old women would allow for less frequent screening initiated at older ages, constituting an efficient use of health care resources.

**PH125**

**THE IMPACT OF EMPLOYEES WORK ABSENTEEISM DUE TO CARE FOR A SICK PERSON ON PRODUCTIVITY IN POLAND**

**Wojciech W. Hermannowski, Jakubczyk M, Czech M**

**Department of Pharmaceutical Economics, Medical University of Warsaw, Warsaw, Poland**

**OBJECTIVES:** The work absenteeism due to care for a sick person can be considered as indirect costs of illness. This study aimed at assessing the global burden of caring for the ill on productivity in Poland. METHODS: Data were obtained from a survey that included 50 respondents for the purposes of the EPIWQA-GH questionnaire during computer-assisted personal interview in a representative sample of the Polish general population aged more than 15 years. There were 2019 respondents, gathered in two waves in January and May 2010. Human capital approach was used to assess the burden of caring for the ill. Results: The final population consisted of 795 employees among whom 176 respondents (21%) took care for a sick person in the last 12 months—78% (10%), 74% (9%), and 19% (2%) respondents took care for a child, other family member and non-family member, respectively. On average, a respondent spent 9 hours a day (6 h) taking care of a sick person for an average period of 21 days (11 hdl for 14 h caring for a child, 7 hdl for 23 d caring for other family member; 13 hdl for 22 d caring for non-family member). These 9 hours were reduced working time (3.4 h) and off-work activities (5.6 h). Estimated productivity loss equals €603 on average per year for individuals looking after the ill and €111 on average per year for each employee. CONCLUSIONS: Caring for the sick, mostly family members, influences working time of Polish employers. Productivity loss of a single employee has a moderate impact on production, but in global scale or in specific health condition it might be perceived as an important factor modifying indirect costs of illness.

**PH126**

**DEVELOPMENT OF A SEGMENTATION MODEL TO IDENTIFY HEALTH CARE DEMAND AND RELATED COSTS ATTRIBUTABLE TO POPULATION'S CHARACTERISTICS**

**Maurizio F., Fornari C., Riva MA, Scaloni L., Ciampichini R2, Bonacci MC, Cesana G**

**University of Miano – Bellinzona, Milan, Italy**

**OBJECTIVES:** The assessment of individuals’ demand and related costs can guide to allocate health care resources and improve access to health care. We created a segmentation model and we estimated health care costs and their determinants within specific and distinguished groups of general population. METHODS: The target population included subjects living in an area of northern Italy registered at one Primary Local Healthcare Unit in 2005 (1,031,684 subjects). On the basis of clinical judgments and literature, we identified eight different segments: subjects unknown to HS, maternity and infancy, elderly, people with one chronic disease (CD), people with more than one CD, people with probable or not severe CDs, subjects with acute event. We describe these groups and their health demand, we used demographic and health care demand data (hospital admissions, drug's prescriptions, medical specialist visits, diagnostic tests) from administrative databases available at the Lombardy Health System (HS). These were merged adopting probabilistic record linkage (IDENAL Data Warehouse) to optimize correct matching of data. RESULTS: Overall, health care cost €384 million in 2005 ($189 per capita). Healthy people were 53% of the sample and cost €180 per capita. Next more frequent subjects were those with one CD (14%) and cost €916 per capita, then those with more CDs (13%) who cost €347 per capita. Hospitalizations were the cost driver in 5 segments (maternity and infancy, elderly, one CD, more CDs, acute event), accounting for 42–89% of total costs. Diagnostic tests and medical visits contributed to 42–45% of total costs among healthy subjects and those with probable CD. Drugs accounted for 24% of costs of sample. CONCLUSIONS: This pioneer demand segmentation model shows an example of how merging different administrative databases makes possible understanding effects of their characteristics on health care demand and costs. Research is encouraged to improve model and study specific variants that can be applied in different health care contexts.

**PH127**

**ADHERENCE TO PRESCRIPTION MEDICATIONS IS HIGHER WITH USE OF A GENERAL PRACTITIONER**

**Goren A1, Dibonaventura M, Gupta S, Wagner J2, Friedman D3**

**Veteran Health, New York, NY, USA; 2Vanderbilt Health, New York, NY, USA; 3Vanderbilt Health, Pleasant Hill, CA, USA**

**OBJECTIVES:** Non-adherence to treatment regimens results in risks and health care costs due to increased emergency care. One reason for non-adherence, especially with multiple prescriptions, may be the lack of coordination of care among multiple specialists (Carter & Fretter, 2010). Assuming that general/family practitioners (GPs) help coordinate patient care, the current study examined the impact on adherence with the introduction of a GP. METHODS: Adherence data from the European 2008 National Health and Wellness Survey (a self-reported online survey sampling respondents from the UK, France, Germany, Italy, and Spain) were analyzed, with ANOVAs or negative binomial regressions for resource utilization, as a function of seeing a GP (yes/no) crossed with number of prescriptions (1–2, 3–4, and ≥5). Adherence, the main outcome, was a Morrissey Score ranging from 0 (perfect adherence) to 4 (low adherence). Health care resource utilization measurements included number of hospitalizations and visits to the emergency room (ER) in the past six months. RESULTS: There were 17,409

**INDIVIDUAL'S HEALTH – Patient-Reported Outcomes Studies**