in compliance with the legislative requirements on evaluating cost-effectiveness in the Czech Republic.

**PHP115**
**COULD HEALTHCOIN BE A REVOLUTION IN HEALTHCARE?**
Hanna E[1], Remuzat C[2], Auquier P[1], Dussart C[3], Toumi M[1]
[1]*Aix-Marseille University, Marseille, France,* [2]*Creativ-Ceutical, Paris, France,* [3]*Lyon 1 University, Lyon, France*
**OBJECTIVES:** Blockchain consists of a shared database used to maintain a continuously growing list of transactions, called blocks. Blockchain technology has started in 2008 with the first decentralized digital currency "Bitcoin". Bitcoin is a cryptocurrency and a digital payment system that can be exchanged for other currencies or products. New potential uses of blockchain are under investigation among which its application in healthcare "healthcoin". Our aim was to review the available information on healthcoin to gain a better understanding of this concept and its applicability. **METHODS:** A literature review was conducted in Pubmed and the grey literature using the keywords: Healthcoin, blockchain, healthcare, financing, breakthrough therapies. Articles in French and English were included and no timelines restrictions were applied. **RESULTS:** : Founded in 2016 by Diego Espinosa and Nick Gogerty, healthcoin was the first blockchain based platform for rewarding prevention of diabetes. Users submit their biomarkers (hemoglobin A1c) into the blockchain that automatically calculates the improvement and awards the patient digital tokens: "healthcoins". For each healthcoin earned, a tax break can be offered by the government; a discount on fitness brands can be offered to reward patients. This same currency concept was adapted by Basu et al. 2016 as a new financing method for breakthrough therapies for diabetes. It converts the incremental benefits produced by the novel therapy to a common numeraire such as life years gained. It is a currency that could be traded between the private payers and Medicare in the United States, rewarding the former to invest in breakthrough therapies that provide important efficacy for patients before the age of 65. **CONCLUSIONS:** Healthcoin may potentially constitute a revolution for the healthcare sector. Healthcare industry can share and store information transparently through healthcoin. Further studies to assess the feasibility of healthcoin payments may be interesting for payers and decision makers.

**PHP116**
**AGING OF HEALTH CARE PROFESSIONALS IN HUNGARY**
Elmer D, Boncz I, Endrei D, Molics B, Németh N, Kerner Á, Ágoston I
*University of Pécs, Pécs, Hungary*
**OBJECTIVES:** Recent years have seen an increase in focus, at an international level, on changes regarding the number and the income of health care professionals. Better circumstances, higher salary prospects are major sources of motivation for health care professionals to work abroad. Efforts at keeping them home have became one of the most emphasised targets of the government. The aim of our study was to analyze the aging of health care professionals in Hungary. **METHODS:** Data were derived from the database of the Health Registration and Training Center (OSAP Nr. 1626 data collection programme). We created three age groups within headcount between 2003-2015 in point of the following health care professionals working in health care sector: general practitioners, specialist physicians, dentists, specialist dentists, pharmacists, specialist pharmacists, nurses, dieticians, physiotherapists, midwives, health visitors, ambulance men. **RESULTS:** While the proportion of nurses (-33%), and midwives (-26%) decreased most in the age group 39 and below, the highest increase was observed in the age group of 40 to 59 years (+31%, +22%) . Dentists showed the biggest decrease (-30%) in the age group of 40 to 59. The proportion of specialist physicians increased the most from 5% to 24% (2003-2015) in age group 60 and above. **CONCLUSIONS:** Between 2003-2015 there was a remarkable increase and decrease in the age groups of health care professionals in Hungary. The changes showed significant differences among different professions. In order to prevent the rapid aging of health care professionals, further improvement of salaries is required.

**PHP117**
**THE ATTITUDE OF POLISH PHYSICIANS TOWARDS INTRODUCTION OF E-PRESCRIPTION – A QUESTIONNAIRE SURVEY**
Kowalczyk M, Hermanowski TR, Kolasa K
*Medical University of Warsaw, Warsaw, Poland*
**OBJECTIVES:** At present, there is a problem in Poland regarding under-quality and incompleteness of health records. EHealth solutions, including and electronic prescription (e-prescription), provide an opportunity to correct these irregularities. In Poland, work on the implementation of these solutions is ongoing since 2011. This survey was to examine the attitude of Polish physicians towards introduction of e-prescription. The main aim was to make recommendations for the decision makers responsible for the implementation of the system in Poland, based on the results of the survey. **METHODS:** A questionnaire research was conducted, with 100 primary care family medicine physicians as responders. Quota selection was applied, reflecting the number of respondents in particular voivodships. The selection included 3 categories of workplaces: main provincial cities, medium-sized towns (less than 70,000 inhabitants) and small towns (less than 10,000 inhabitants). The questionnaire contained 27 questions. **RESULTS:** Physicians are generally convinced, that e-prescribing will eliminate prescription illegibility and solve the problem of incompleteness. Doubts are associated also with visit time, legal issues, patients' difficulties with adaptation to system and costs. Despite many concerns, most physicians declare willingness to use the system in their everyday practice, however, it was significantly more often among physicians from main provincial cities than among respondents from smaller towns. **CONCLUSIONS:** In order to ensure the success of the implementation of the e-prescription system, cooperation and acceptance of medical environments is essential. The eHealth service system should be designed taking into account the needs of its target participants, since it is the only way to achieve positive effects. It is recommended to carry out information and education actions, in particular in smaller locations.

**PHP118**
**IMPACT OF WEIGHT CHANGE AFTER QUITTING CIGARETTES ON ALL-CAUSE AND CAUSE-SPECFICIC MORTALITY IN MIDDLE-AGED MALE SMOKERS: NATIONAL HEALTH SCREENING COHORT STUDY**
Kim K[1], Choi S[1], Cho MH[2], Jun JH[3], Koo HY[3], Chang J[1], Kim SM[1], Lee K[3], Park SM[1]
[1]*Seoul National University, Seoul, Korea, Republic of (South),* [2]*Seoul National University Hospital, Seoul, Korea, Republic of (South),* [3]*Seoul National University Bundang Hospital, Gyeonggi-do, Korea, Republic of (South)*
**OBJECTIVES:** We aimed to investigate the association between weight change after smoking cessation and the risk of all-cause and cause-specific mortality among middle-aged male smokers. **METHODS:** We conducted a prospective cohort study using the National Health Insurance Service National Health Screening Cohort (NHIS-HealS) database. Male Participants (n=102,403) without critical conditions aged between 40 and 79 at baseline who underwent biennial health examination were included in this study. Participants were categorized into continued smokers, recent quitters (within 4 years), long-term quitters (more than 4 years), and never-smokers based on the self-reported smoking status. Weight change was determined by the change of Body Mass Index (BMI) between the first (2002-2003) and second (2004-2005) health examination records. We followed patients from January 1, 2006 to December, 31, 2013. To assess the risk of all-cause, cancer, cardiovascular disease (CVD) mortality, and non-cancer, non-CVD mortality according to smoking cessation and weight change, we computed Hazard Ratio (HR) and 95% Confidence Interval (95% CI) using Cox proportional hazard models. **RESULTS:** Severity of weight gain was more prevalent among recent quitters compared to long-term quitters. After adjusting for covariates and weight change, both recent quitters (HR:0.74; 95% CI: 0.63-0.87) and long-term quitters (HR:0.53; 95% CI:0.45-0.61) had decreased risk of all-cause mortality compared to continued smokers. Similarly, both recent and long-term quitters had decreased risk of cancer, CVD, non-cancer, and non-CVD death regardless of weight change following smoking cessation. Compared to continued smokers, non-smokers also had a lower risk of overall and cause-specific death. **CONCLUSIONS:** Post-cessation weight change did not modify the protective association of smoking cessation with reduced risk of all-cause and cause-specific death. From a public health perspective, smoking cessation program may contribute to reducing risk of death in middle-aged male smokers despite the concern on weight change after quitting smoking.

**PHP119**
**EVALUATION OF AN ATTITUDES TOWARD MEDICAL ERRORS SCALE IN PHARMACY AND HEALTHCARE PROFESSIONAL STUDENTS**
Griggs S
*St Louis College of Pharmacy, St Louis, MO, USA*
**OBJECTIVES:** To develop and evaluate an attitudes toward medical errors scale in pharmacy and healthcare professional students with the goal of improving patient safety and outcomes in healthcare. **METHODS:** In 2012, St. Louis College of Pharmacy students (N=111) as well as students from eight additional health professions at a medium-sized Midwestern university (N=154) participated in an anonymous online survey. Ninety-five items evaluating attitudes toward medical errors (ATME) and eleven demographic questions were included in the survey. **RESULTS:** Following item and factor analysis, a 24-item ATME survey (final version) was developed from three dimensions: cognitive [8 items], affective [8 items], and behavioral [8 items]. Results showed that students with positive ATME tend to learn from errors; students with negative ATME, however, tend to have no intention of taking steps to learn from their errors. Of the 111 pharmacy students, ATME was lower among men (ATES=78.77, N=32, s.d.=8.19) than women (ATES=79.16, N=79, s.d.=8.86, range=58-105). In addition, ATE was lower among pre-pharmacy students (ATES=77.13, N=32, s.d.=9.00) than P1 and P2 pharmacy students (ATES=79.63, N=42, s.d.=9.13) or P3 and P4 pharmacy students (ATES=80.05, N=37, s.d.=8.64). Interestingly, results from the 8-item cognitive scale indicated that male students increased as they progressed from pre-pharmacy through the professional program; however, female students showed a reduction in the cognitive scale mean as they progressed through the six-year program. Pharmacy students in years P3 and P4 who had clinical experience showed statistically significantly higher learning goal orientation than those with no clinical experience; respondents with a learning goal orientation were more likely to have a positive ATME. **CONCLUSIONS:** The ATME scale shows potential value to healthcare professionals and educators in designing curricula and training programs to better understand ATME and its three subscales (cognitive, affective, and behavioral). Improvements in training and education can minimize future medical errors and enhance patient healthcare outcomes.

**PHP120**
**INTERCONTINENTAL LINKS AMONG HEALTH TECHNOLOGY ASSESSMENT ORGANIZATIONS**
Cinaroglu S[1], Baser O[2]
[1]*Hacettepe University, Ankara, Turkey,* [2]*Columbia University and STATinMED Research, New York, NY, USA*
**OBJECTIVES:** A health technology assessment (HTA) system reflects a nation's culture and private organizations. HTA systems originated in European countries and are more coordinated when compared to those in the United States. Thus, European countries led the development of network links with other countries to strengthen global HTA efforts. However, little is known about intercontinental links among HTA organizations; thus, this study aims to visualize those global links. **METHODS:** The total number of HTA organization memberships in ISPOR, HTAi, INAHTA, EuroScan, EUnetHTA, HTAsiaLink, and RedETSA were examined to create intercontinental linkage among HTA organizations. A total of 373 HTA organizations from 72 countries and 7 continents were included in the study. A network parameter was determined using frequencies and percentages to summarize different countries' number of HTA organization memberships. "Map," "diagram," and "plotrix" packages were used in an R program to illustrate the intercontinental links and visually identify major hubs in this worldwide network. **RESULTS:** An intercontinental link map,