influenza-like-illness (ILI), work productivity and indirect costs (potential cost savings) for the employer. METHODS: A prospective observational study was conducted among the workforce of a bank of Bogota from October 2000 to May 2001, with 2 cohorts: influenza vaccinated (volunteers) and not vaccinated. Self-administered monthly questionnaires collected socio-economic and health status information, data on ILI symptoms and sick leaves. Vaccine’s adverse events were reported one week after injection. Cost-benefit analyses were performed from the employer perspective using individual operating income and salary values. Costs of vaccination included vaccine administration and adverse events. Loss of productivity was assessed by sick leave days, days of reduced effectiveness at work due to being not well because of ILI. RESULTS: Among the 759 subjects, 56% vaccinated and 44% not vaccinated, the attack rates of ILI were respectively 15% versus 47%, with presence of usual symptoms (cough, chills, muscle aches . . .) and fever in 93% of the reported ILI. Absence rates for ILI were similar in the 2 cohorts: 2.6%, with a mean of 3.1 days of sick leave, as well as the proportions of people feeling not well because of ILI: 93%, with a mean of 4 days before being well again. Using the realistic hypothesis of a reduced effectiveness of 30% when the patient is not well because of ILI, global cost savings were US$7469 for the study population and US$59 per individual i.e. a cost-benefit ratio of 20%. CONCLUSIONS: Among the studied volunteers, ILI has significant impact on work productivity, in terms of indirect costs, even if considering lower work effectiveness rates’ hypotheses, in conditions of mild outbreak of influenza. Possible expansion of influenza vaccination to all the company could lead to important employer cost savings.

PIN25
VACCINATION IN HEALTHY WORKING ADULTS: WHAT RETURN ON INVESTMENT FOR COMPANIES? AN INTERNATIONAL PERSPECTIVE
Anne T, Plun-Favreau J
Aventis Pasteur International, Lyon, France

OBJECTIVE: In healthy working adults, it has been documented that vaccination programs may yield cost-savings by avoiding absenteeism and loss of productivity. However few studies provide an international perspective. The objective of this project is to develop a multinational measurement of the cost-benefit aspect of vaccination programs against influenza, typhoid fever and hepatitis A in an adult population working in various countries and industrial sectors. METHODS: A cost-benefit model has been developed in order to calculate the cost-benefit result of vaccination programs. The costs of the vaccination alternative, including associated immunization services are thus compared to the benefits i.e. avoided absenteeism and loss of productivity by preventing the diseases. Those benefits are represented by three different items being 1) Avoided loss of labor costs; 2) Avoided cost of replacement; and 3) Avoided loss of operating income. Companies published financial data from four countries (Australia, Turkey, Brazil and Philippines) have been sampled and gathered in order to yield an average cost-benefit result by country. A sensitivity analysis and break-even analysis have been performed on the main criteria involved in the calculation. RESULTS: Considering the three diseases, the results obtained show an average cost of diseases for 100 employees of US$11,086.81 per year. The net cost-savings per employee vaccinated and per year ranged from US$13.54 (in the Philippines) to US$80.17 (in Turkey). CONCLUSION: This predictive approach aimed at assessing the return on investment for companies in case of funding a vaccination program proposed to the employees. The simulations based on aggregated published financial data show a cost-savings specific to each country for different industrial sectors. It deserves further analysis on a larger sample of companies in other countries and industrial sectors.

PIN26
THE COST EFFECTIVENESS OF SAFE AND APPROPRIATE USE OF INJECTION POLICIES IN HEALTH CARE SETTINGS
Dziekan G1, Chisholm D1, Johns B1, Rovira J2, Hutin Y1
1World Health Organization, Geneva, Switzerland; 2World Bank, Washington, DC, USA

OBJECTIVES: In developing and transitional countries, poor injection practices transmit potentially life-threatening pathogens. We modelled the cost effectiveness of safe and appropriate use of injections policies in terms of cost per Disability Adjusted Life Year (DALY) prevented. METHODS: A mass action model estimated the incidence of injection-associated Hepatitis B Virus (HBV), Hepatitis C Virus (HCV) and Human Immunodeficiency Virus (HIV) infections. We reviewed the effectiveness of interventions to reduce injection overuse or unsafe practices. DALYs were age-adjusted and 3% discounted. We quantified the resources needed to implement effective interventions and estimated their cost by region. The cost effectiveness compared the effects of a “Do nothing” scenario with that of an intervention on a theoretical 2000 cohort using WHO Global Burden of Disease regions and a 30-year analytic horizon. RESULTS: Preliminary results suggest that worldwide, re-use of injection equipment in 2000 accounted for 32%, 40% and 5% of new HBV, HCV and HIV infections respectively, causing the loss of 9,177,679 DALYs between 2000 and 2030. Interventions in 2000 for the safe (provision of single-use syringes, average effectiveness: 95%) and appropriate use (patients-providers interactional group discussions, average effectiveness: 30%) would prevent 8,856,460 DALYs and cost US$463.4 million (range by region of the cost per DALY prevented: 6.7–1652). Compared to other regions, the cost per DALY prevented was lower in