Methods: A Markov cohort model, populated using Netherlands epidemiological, cervical cancer screening, treatment pattern, and cost data was used to perform the analysis. Societal lifetime costs were included at 2006 prices. Initial vaccine efficacy of 95% against HPV-persistent infection with HPV-16/18 plus 30% efficacy against other oncogenic HPVs ("cross-protection") was assumed in the base case.

Reduction in cancer cases, associated quality-adjusted life years (QALYs) and costs for a vaccine against HPV-16/18, and other oncogenic HPVs with lifetime cervical cancer protection were compared with vaccine scenarios having less than lifetime protection. These scenarios included: 1) alternative combinations of HPV types that wane (HPV-18 alone, oncogenic non-vaccine HPV alone, HPV-18 + oncogenic non-vaccine HPV); 2) alternative durations of protection (range: 5–30 years); 3) alternative patterns representing the time of decline to 0% protection (linear 5-year, linear 10-year, other); 4) alternative rates of booster vaccine coverage (range 0% - 100%) and protection (i.e. double original vaccine protection vs. lifetime protection)

Results: In the hypothetical vaccine scenarios, overall duration of vaccine protection had the largest impact, followed by HPV-type-specific waning, then the pattern of waning decline. Waning impact depended on the relationship between age and HPV infection rate, as well as on HPV-type distribution in cervical cancer. Adding a booster increased the overall costs, but improved clinical outcomes and QALYs.

Conclusion: Vaccine waning is an important characteristic to consider when assessing a vaccine’s effectiveness against cervical disease related morbidity and mortality; a vaccine with more sustained protection is predicted to have better clinical outcomes at lower total costs.

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Successful Experience of Harm Reduction Program in Taoyuan County

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Background: HIV infections terribly increased in Taiwan since 2004. The number of new infected doubled annually and 70% of them was IDU. Therefore, a harm reduction program started in Taiwan to fight against HIV/AIDS since 2006.

Methods: A harm reduction campaign, including methadone treatment, syringe exchange program, HIV screening and counselling services started in Taoyuan County, Taiwan in 2006. In addition, various health education programs designed for students, inmates, IDUs and general public were carried out simultaneously. Behavioral science survey was also implemented to evaluated the impact of harm reduction campaign.

Results: In 2007, a total of 3,299 IDUs enrolled in methadone program; meanwhile 109 stations were set up to provided free syringes exchange and counselling. Through two year’s efforts, the epidemic of HIV infection reversed dramatically in Taoyuan, Taiwan. In 2006, the number of HIV new infected decreased 43% in comparison with that in 2005; furthermore, the number, decreased 44% in 2007 compared with that in 2006. In addition, the crime events related to drugs dropped significantly in recent two years.

Conclusions: Harm reduction program is highly effective to prevent HIV infection and improve public security. Medical workers and pharmacists involved harm reduction program also show good support on this program. However, without IDUs' participation in strategies planning, the program in Taoyuan won’t succeed.

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Prevalence of Infectious Diseases Among Immigrants Detected in Kuwait

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Background: More than 400,000 immigrants come to Kuwait every year and majority of them from developing countries where infectious diseases are endemic. Our aim was to evaluate the prevalence of six infectious diseases among immigrants and to control the spread of these infections in Kuwait.

Methods: Blood samples from all the immigrants were checked for infectious diseases like, malaria, filaria, HIV, hepatitis B and C and chest x-ray for tuberculosis.

Results: The total population screened for malaria and filaria were 682,713; for HIV, tuberculosis, hepatitis B and hepatitis C were 1354,151, respectively. Over all incidence of positivity for these diseases were 9,444 (0.5%). About 226 (0.033%) individuals were infected with malaria and the same number with filaria; 301 (0.022%) with HIV; 3,182 (0.23%) with hepatitis B; 3,247 (0.24%) with hepatitis C and 2,262 (0.17%) with tuberculosis. Most of these infectious diseases were found among Indians, Bangladeshis and Pakistanis, respectively.

Conclusion: The infected individuals with malaria were treated in Infectious Diseases Hospital, whereas, those with filaria, HIV, hepatitis B and C were sent back to their countries because of the risk of transmission. The dominant species of malaria was Plasmodium vivax followed by Plasmodium falciparum.